



MAJOR GENERAL HARDWICKE.

F.R.S. F.R.A.S. F.L.S. F.Z.S.

&c. &c. &c.

From a Portrait by J. Lucas.

Lithographed by Louis Haghe.

Published by Treuttel, Whittz, & Co. 25, No. 2, Square, Perbury & Allen, 10, St. James's, London, 1844.

Printed by J. W. Smith, 10, St. James's.

8/A

ILLUSTRATIONS

OF

INDIAN ZOOLOGY;

CHIEFLY SELECTED FROM THE COLLECTION

OF

MAJOR-GENERAL HARDWICKE, F.R.S.,

L.S., M.R.A.S., M.R.I.A., &c., &c.

BY

JOHN EDWARD GRAY, F.R.S.,

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MEMBER OF THE NATURAL HISTORY SOCIETY OF PARIS, AND OF THE IMPERIAL SOCIETY OF THE OBSERVERS OF
NATURE AT MOSCOW, AND OF THE NATURAL HISTORY SOCIETY OF NEWCASTLE-UPON-TYNE, &c. &c.

VOL. I.



LONDON:

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MDCCCXXX---MDCCCXXXII.

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RB
SI

TO THE
HONOURABLE COURT OF DIRECTORS

OF THE

Honourable East India Company,

THIS COLLECTION OF PLATES

OF THE HITHERTO UNFIGURED INDIAN ANIMALS,

IS

WITH THEIR PERMISSION RESPECTFULLY DEDICATED,

BY THEIR GRATEFUL AND OBEDIENT SERVANT,

BRITISH MUSEUM,
MAY, 1832.

THE EDITOR.

DIRECTIONS FOR ARRANGING THE PLATES,

OF THE

NUMBERS I. to X.

MAMMALIA.

1. Murine Dysopes. *Dysopes Murinus*, Gray.
2. Beautiful Cat. *Felis ornata*, Gray.
3. Allied Cat. *Felis affinis*, Gray.
4. Bengal Civet. *Viverra Bengalensis*, Gray.
5. Brown long nosed Civet. *Viverra? fusca*, Gray.
6. Collared Civet Bear. *Mydaus collaris*, Gray.
7. Skull and Head of the same, of natural size.
8. Collared Hedge Hog. *Erinaceus collaris*, Gray.
9. Musk Shrew. *Sorex myosurus*, Pallas.
10. Indian Gerboa Rat. *Gerbillus Indicus*, Desm.
11. Indian Field Mouse. *Arvicola Indica*, Gray.
12. Indian Antelope. *Antelope cervicapra*, Lin.
13. Head and Horn of the same, of natural size.

BIRDS.

Raptorial.

14. White-backed Vulture. *Vultur leuconota*, Gray.
15. Fig. 1. Bengal Vulture. *Vultur Bengalensis*, Lath.
Fig. 2. Pondicherry Vulture. *Vultur Pondicherianus*, Lath.
Fig. 3. Mask Vulture. *Vultur monachus*, Lath.
16. White Dotted Eagle. *Aquila punctata*, Gray.
17. White-banded Eagle. *Aquila bifasciata*, Gray.
18. Lined Fishing Eagle. *Haliastur lineatus*, Gray. Inhab. China.
19. Plain Fishing Eagle. *Haliastur unicolor*, Gray. Inhab. China.
20. Coromandel Owl. *Strix Coromandra*, Lath. Inhab. Coromandel.
21. Chinese Owl. *Strix Chinensis*, Lath. Inhab. Himalaya Mountains.

Perching.

22. Almorah Jay. *Garrulus Vigorsii*, Gray.
23. Fig. 1. Gular Jay. *Garrulus gularis*, Gray.
Fig. 2. Beautiful Jay. *Garrulus ornatus*, Gray.
24. Hunting Crow. *Kitta venatorius*, Gray.
25. Rufous Magpie. *Pica Vagabunda*, Wayler.
26. Chinese Magpie. *Pica Sinensis*, Wayler.
27. Small Paradise Bird. *Paradisea minor*, Lath.
28. Sirkeer Cuckoo. *Centropus Sirhee*, Gray.
29. Fig. 1. Almorah Woodpecker. *Picus dimidiatus*, Temm.
Fig. 2. Rufous Indian Woodpecker. *Picus rufus*, Lath.
30. Fig. 1. Crimson Woodpecker. *Picus mineatus*, Forst.
Fig. 2. Indian three-toed Woodpecker. *Picus Tiga*, Horsf.
Fig. 3. A head of Female.
31. Fig. 1. Nepal Woodpecker. *Picus Nepaulensis*, Gray.
Fig. 2. Moustache Woodpecker. *Picus barbatus*, Gray.
32. Lesser spotted Woodpecker. *Picus Macei*, Temm.
33. Fig. 1. Brown Woodpecker, Lath. *Picus Molluccensis*, Lath.
Male and Female.
Fig. 2. Mahratta Woodpecker. *Picus Mahrattensis*, Lath. Male and female.
34. Fig. 1. Indian Goat Sucker. *Caprimulgus Indicus*, Lath.
Fig. 2. Bombay Goat Sucker. *Caprimulgus Asiaticus*, Lath.
35. Fig. 1. Balastian Swift. *Cypselus palmarum*, Gray. Male, female, nest and young.
Fig. 2. Allied Swift. *Cypselus affinis*, Gray.
Fig. 3. Chinese Martin, Lath. *Hirundo Chinensis*, Gray.

Gallinaceous.

36. Argus Pheasant, Hen. *Argus Pavoninus*, Temm.
37. Hardwicke's Polyplectron. *Polyplectron Hardwickii*, Gray.
38. Lineated Peacock Pheasant. *Polyplectron lineatum*, Gray. Female.
39. Reeve's Pheasant. *Phasianus Reevesii*, Gray.
40. Pucras Pheasant. *Phasianus Pucrasia*, Gray.

Gallinaceous.

41. Nepal Pheasant, Lath. *Phasianus Hamiltonii*, Gray.
42. Purple Pheasant. *Phasianus purpureus*, Gray.
43. Fig. 1. Javan Hen. *Gallus furcatus*, Temm.
Fig. 2. Lord Stanley's Hen. *Gallus Stanleyi*, Gray.
Fig. 3. Banks's Hen. *Gallus Bankiva*, Temm.
44. Malabar Cock, Lath. Hist. *Gallus giganteus*, Temm.
45. Malabar Hen. *Gallus giganteus*, Temm.
46. Black head Horned Pheasant. *Satyra melanocephalus*, Gray.
47. Black headed Pheasant. *Phasianus? melanocephalus*, Gray.
Young Male of former.
48. Black headed Pheasant. *Phasianus? melanocephalus*, Gray.
Female.
49. Pennant's Horned Pheasant. *Satyra Pennantii*, Gray.
50. Chinese Horned Pheasant. *Satyra Temminckii*, Gray.
51. Bengal Horned Pheasant. *Satyra Lathamii*, Gray.
52. Curria Partridge, Lath. *Perdix Hardwickii*, Gray.
53. Fig. 1. Concentric Francolin. *Perdix concentrica*, Gray.
Fig. 2. Javan Peacock, (Head.) *Pavo muticus*, Linn.
54. Chuckar Partridge. *Perdix chukar*, Gray.
55. Fig. 1. Hepburn's Francolin. *Perdix Hepburni*, Gray.
Fig. 2. ————— Pale variety.
56. Fig. 1. Wood Partridge. *Perdix gularis*, Temm.
Fig. 2. Oriental Partridge, Lath. Hist. *Perdix orientalis*, Gray.
57. Olive Partridge, Lath. *Perdix olivacea*, Gray.
58. Eyed Partridge. *Perdix ocella*, Temm.

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59. Edward's Bustard. *Otis Edwardsii*, Gray.
60. Marbled Bustard. *Otis marmorata*, Gray.
61. Delicious Bustard. *Otis deliciosa*, Gray.
62. —————, Female. *Otis deliciosa*.
63. Spur Winged Plover, Lath. Male and female. *Charadrius ventralis*, Wagler.
64. Sataar Jabirn. *Mycteria Australis*. Inhab.
65. Indian white Heron. *Ardea orientalis*, Gray.
66. Fig. 1. Cinnamon Heron. *Ardea cinnamomea*, Lath.
Fig. 2. Yellow necked Heron. *Ardea flavicollis*, Wagler.

Web-footed.

67. Spotted Billed Duck. *Anas poecilorhyncha*, Lath.
68. Girra Teal. Male and female. *Anas girra*, Gray.
69. Fig. 1. Waved Tern, Lath. Hist. *Sterna brevirostris*, Gray.
Fig. 2. Orange Billed Tern. *Sterna aurantia*, Gray.
70. Fig. 1. Javan Tern. *Sterna Javanica*, Horsf.
Fig. 2. Allied Tern. *Sterna similis*, Gray.
Fig. 3. Brown Bellied Tern. *Sterna acuticauda*, Gray. Male.
71. Javan Cormorant. *Carbo Javanica*, Horsf.

REPTILES.

- | | |
|---|--|
| <p>72. Eaved Terrapin. <i>Emys tectum</i>, Bell, MSS.</p> <p>73. Thugi Terrapin. <i>Emys Thugi</i>, Gray.</p> <p>74. Kachuga Terrapin. <i>Emys Kachuga</i>, Gray.</p> <p>75. Baska Terrapin. <i>Emys Baska</i>, Gray.</p> <p>76. Fig. 1. Spotted Terrapin. <i>Emys Hamiltonii</i>, Gray.
Fig. 2. Thick Neck Terrapin. <i>Emys crassicolis</i>, Bell, MSS.</p> | <p>77. Fig. 1. Spinose Terrapin. <i>Emys spinosa</i>, Bell, MSS.
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- | | |
|---|---|
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Fig. 2. Doubtful Toad. <i>Bufo dubius</i>, Gray.</p> |
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FISH.

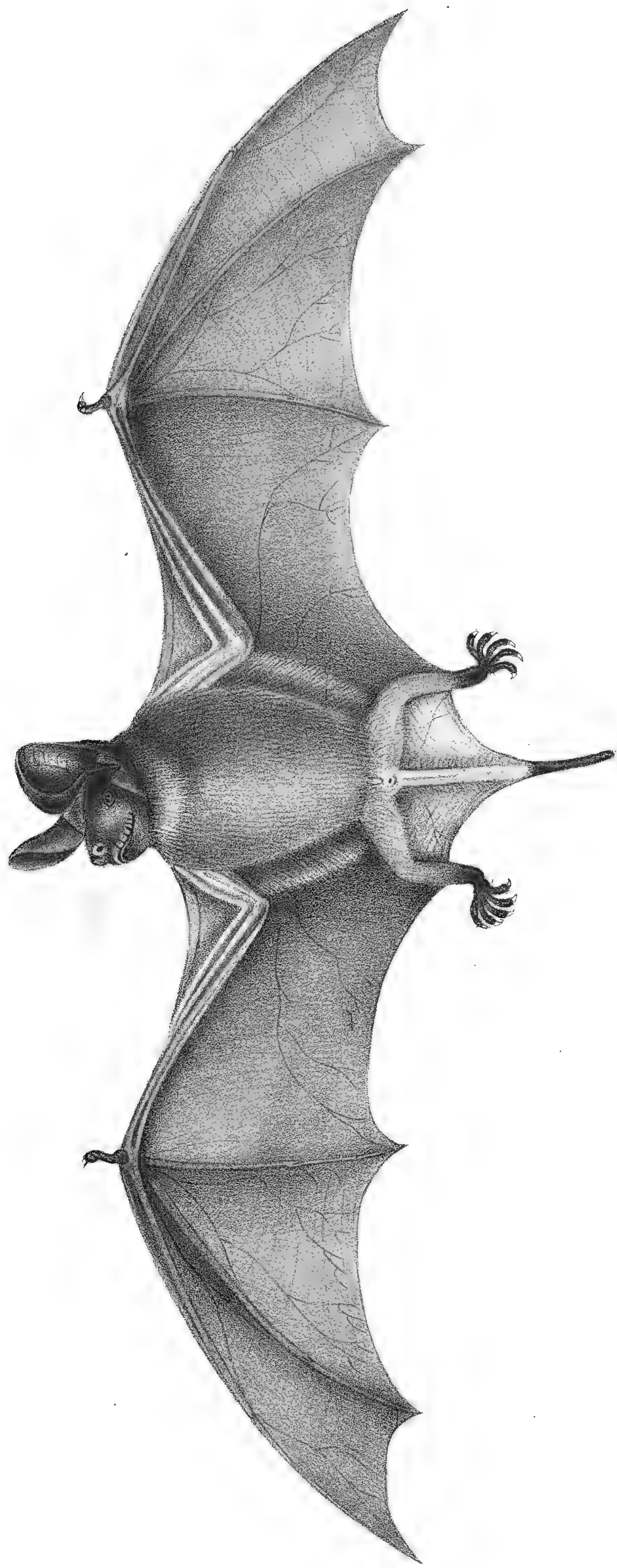
- | | |
|---|--|
| <p>84. Fig. 1. Coach Whip Sisor. <i>Sisor Rabdophorus</i>, Ham.
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Fig. 2. Ornamented Bearded Shark. <i>Scyllium ornatum</i>, Gray.</p> <p>99. Ornamented Trygon. <i>Trygon ornatum</i>, Gray.</p> |
|---|--|

FOSSILS.

100. Fig. 1. Ammonites Nepaulensis.
- Wallichii.
- tenuistriata.

NOTE.—The lineated Pheasant, Latham, on Tab. 40, should be *Nepaul Pheasant*, Lath. Hist. *Emys guttata*, Tab. 75, should be *Emys Hamiltonii*.

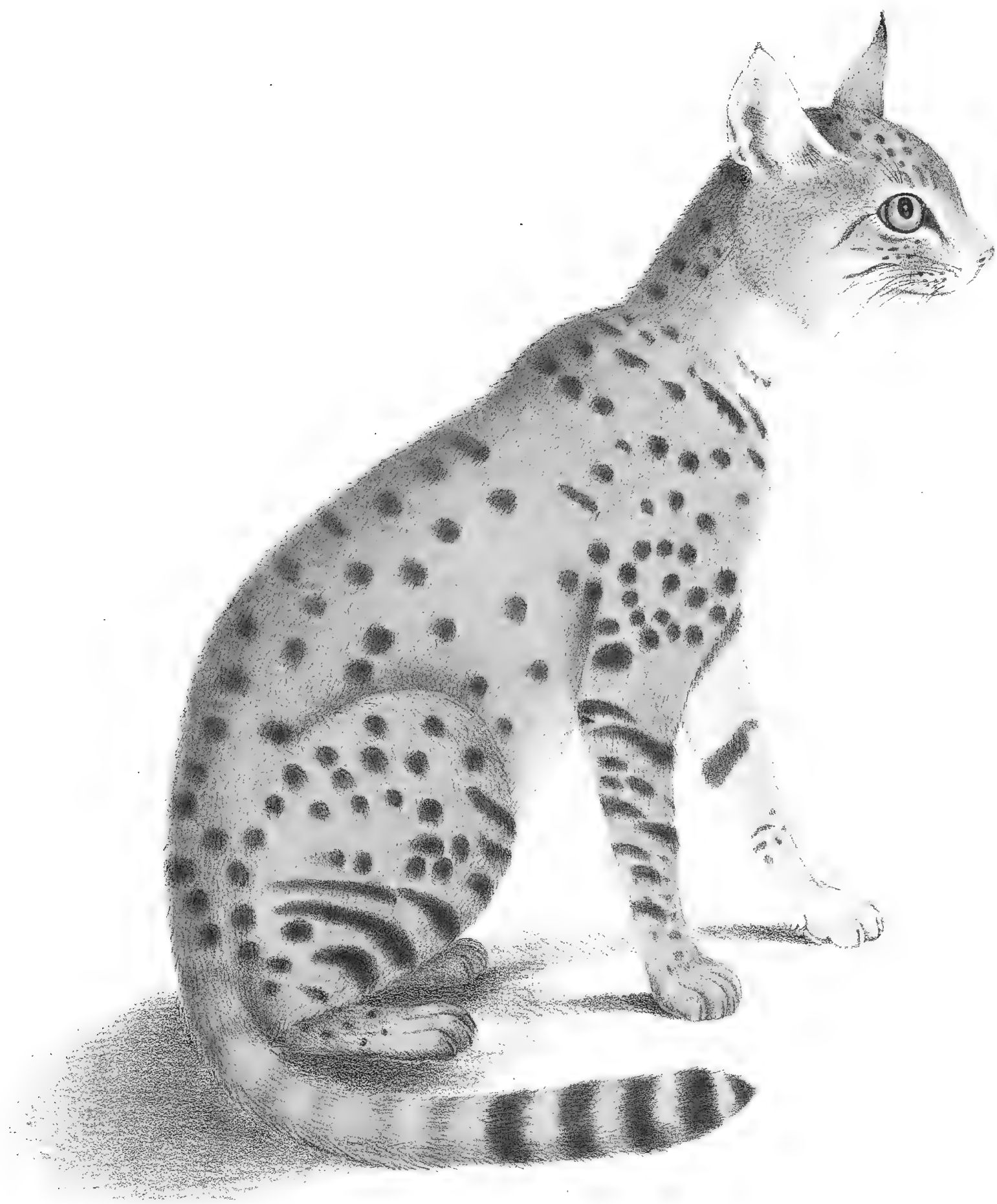
In some copies a few of the names on the Plates are incorrectly printed, but these are corrected in this List, as in t. 25, t. 26, t. 29, f. 2.; t. 39, t. 57, t. 68, f. 1; t. 88, and t. 90.



W.B. Hawkins del.

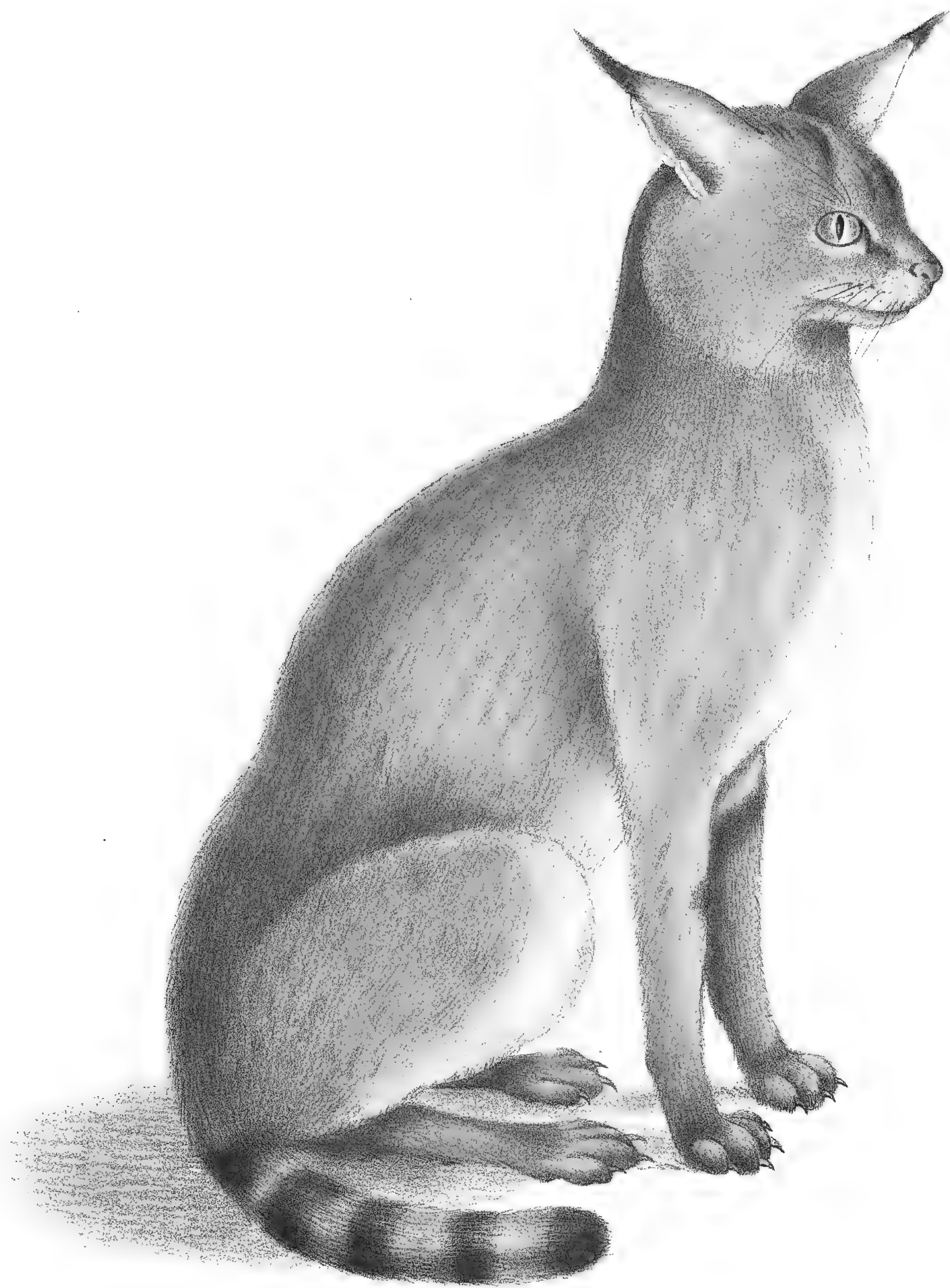
DYSOPES MURINUS. MURINE DYSOPES.
Bengal.

*Published 1829 by Parbury, Allen & Co. Londonhall Street.
Printed by W. Day Jr. Gt. St.*



FELIS ORNATA.-Gray
BEAUTIFUL CAT.

London. Published by Furbury and Allen, May 1st 1839
Printed by Engelmann & Co



FELIS AFFINIS-Gray
ALLIED CAT.

London. Published by Parbury & Allen, May 1st 1829
Printed by Engelmann & Co



V. bengalensis

BENGAL CIVET, *VIVERRA BENGALENSIS*.
Most Part of Bengal.

Published by: Barbary Allen & Co. Ltd. London & New York.
Printed by: W. & A. G. & Co. Ltd. London & New York.



B. W. Unwin's lithing

Printed by Engelmann & Co

VIVERRA FUSCA.-Gray
BROWN LONG NOSED CIVET.

London. Published by Perbury & Allen. May 1st 1829.

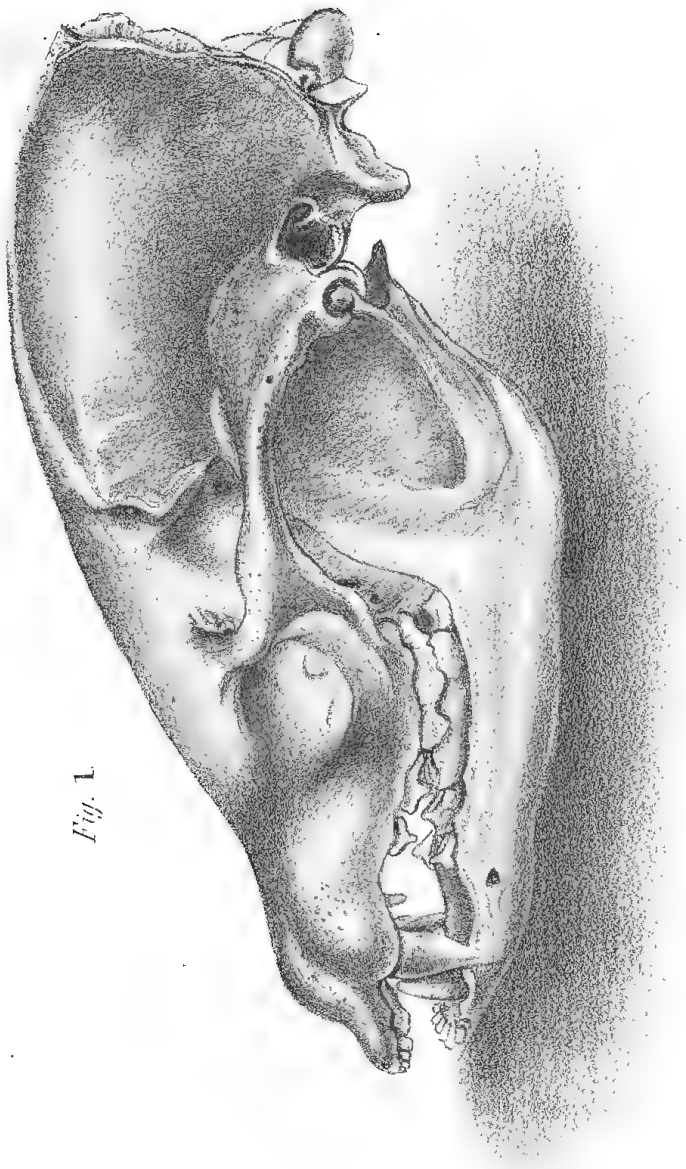


Fig. 1

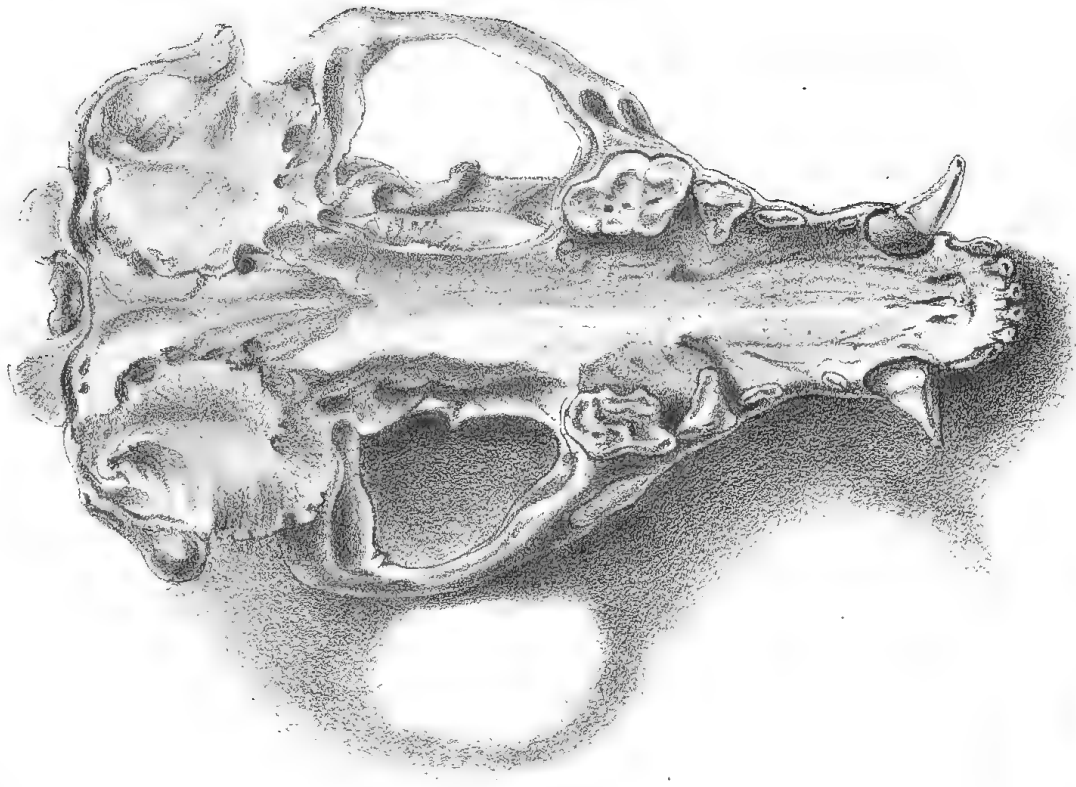


Fig. 2.

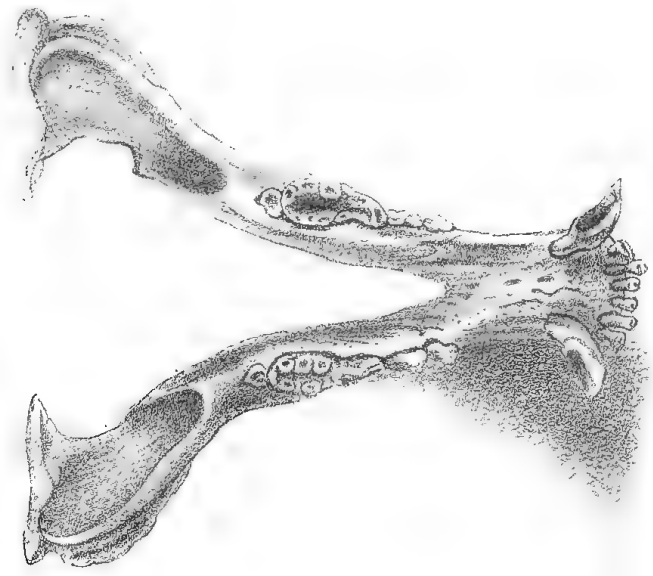
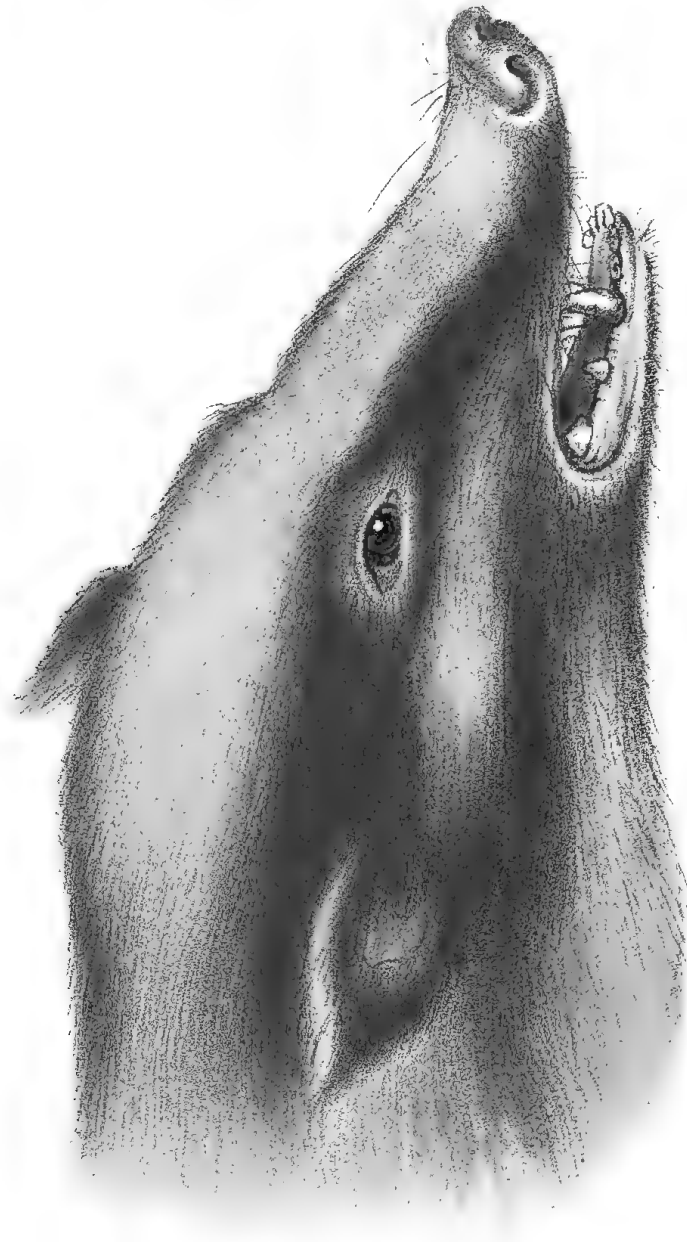


Fig. 3.

Fig. 4.



MYDAUS COLLARIS.-Gray
COLLARED CIVET BEAR.

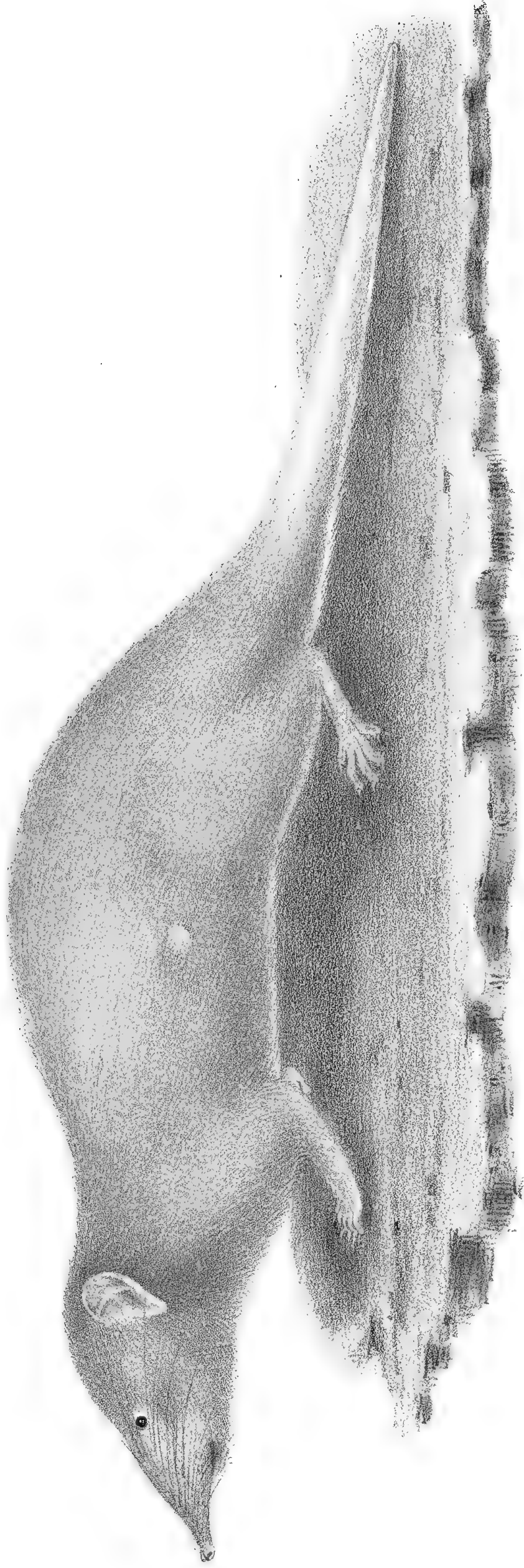
3/4 Nat Size.

Illustrated by F. B. S. Allen, London. May 1st 1829.
Printed by Longman & Co.



ERINACEUS COLLARIS. COLLARED HEDGE HOG.
Doab.

*Published 1879 by Parbury Allen & Co. Leadenhall Street
Printed by W. Day 17 Gate St*



H. W. Harvey del.

Printed by Eyre & Spence.

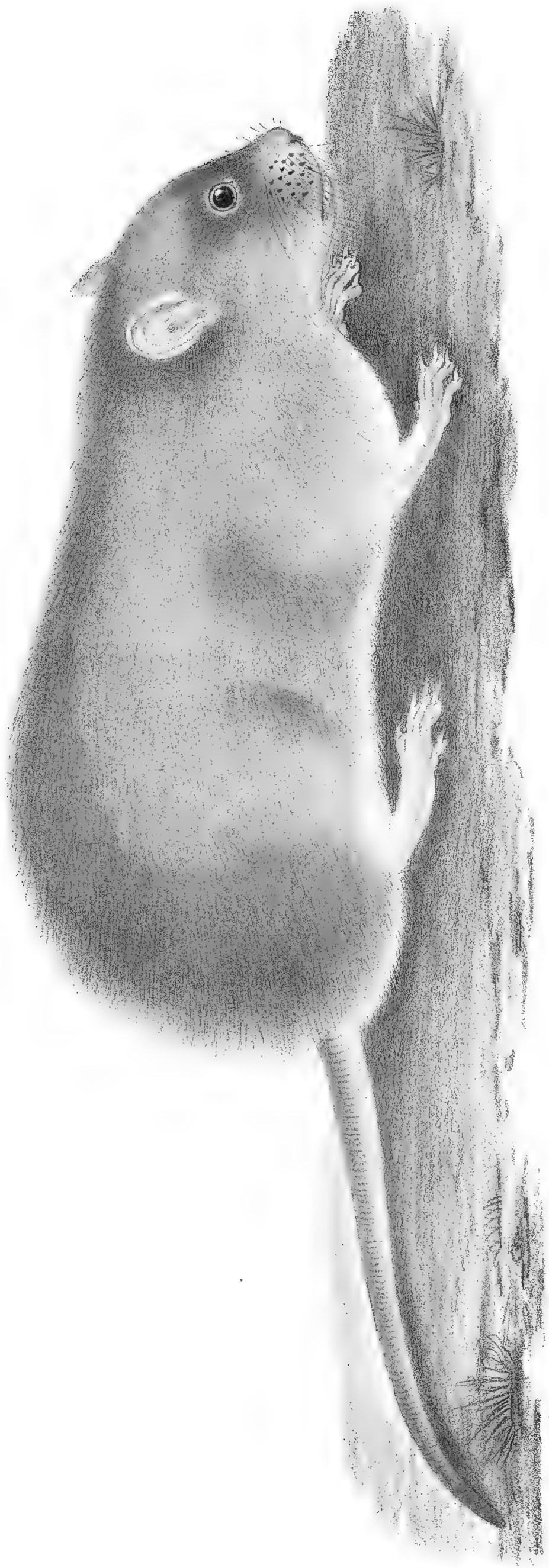
SOREX MYOSURUS.—Pallas. MUSK SHREW.
BEVGAZ

Described by Pallas, 1829 by F. & J. W. Allen, & Co. Laidlaw & Co. Street London



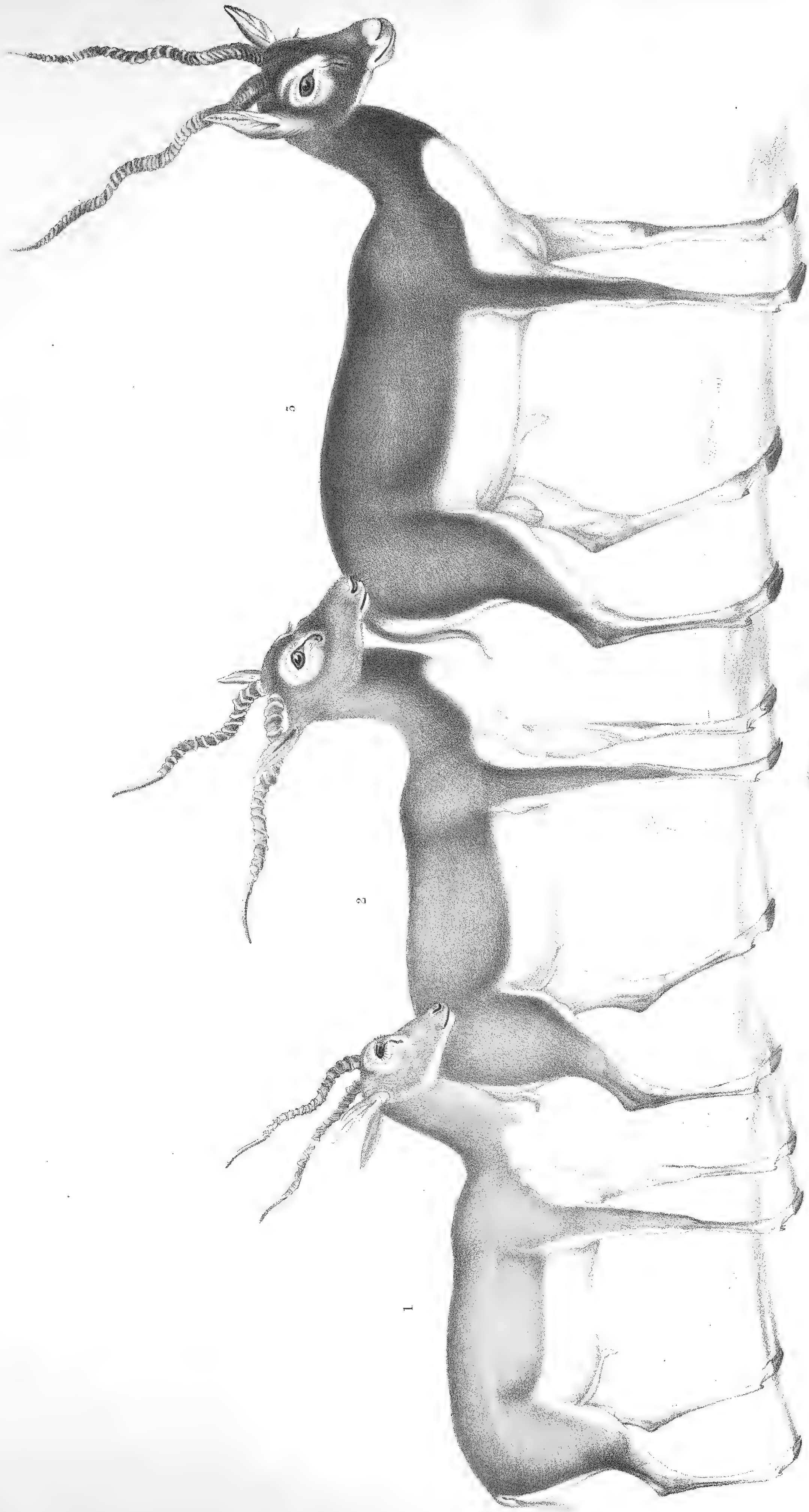
GERBILLUS INDICUS Desm. INDIAN GERBOA RAT.

*Published 1872 by Barbary Allen & Co. Leicester Hall Street.
Printed by W. Day & Co. Gate Street*



ARVICOLA INDICA-Gray.
INDIAN FIELD MOUSE.

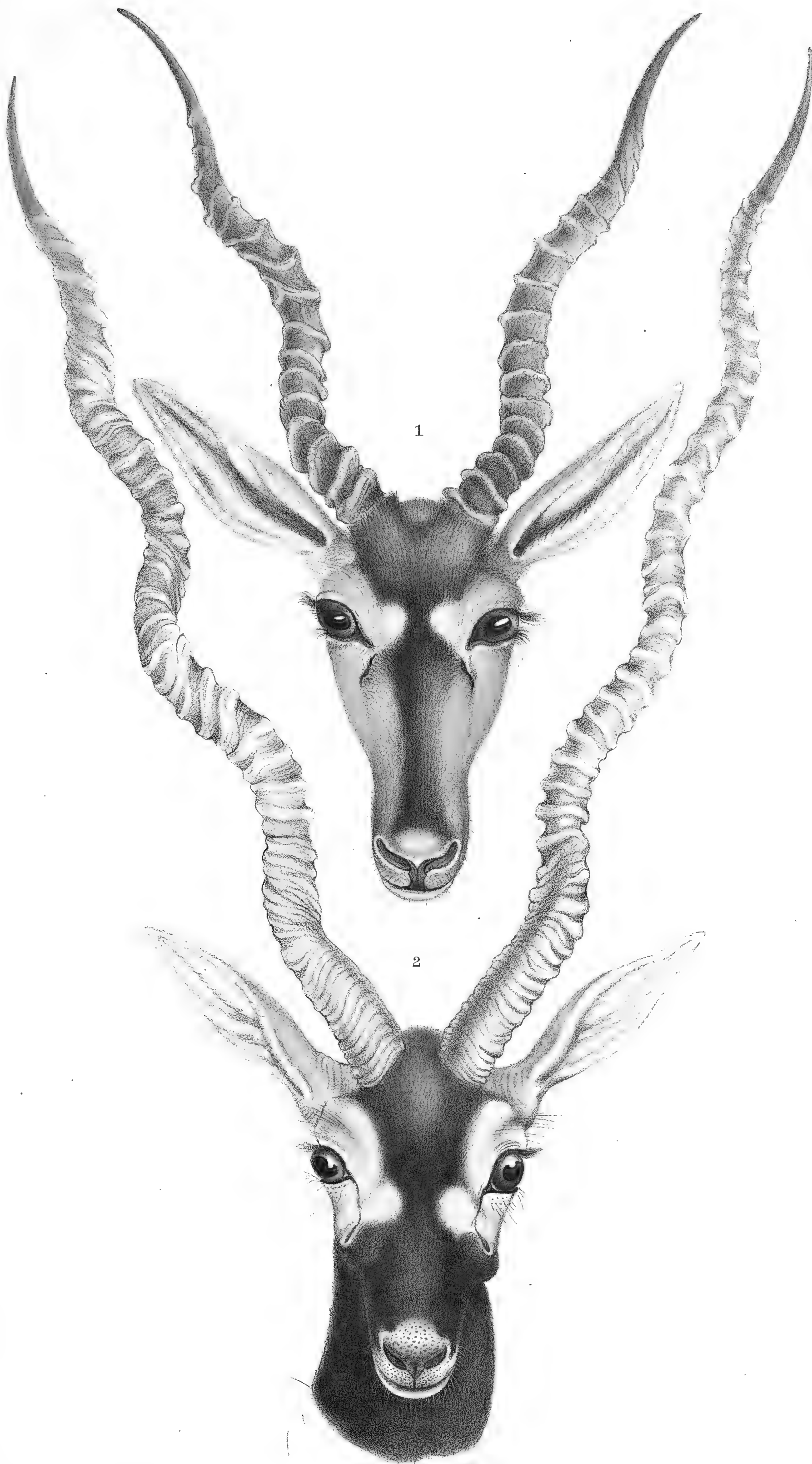
Published by Leach & Allen, London, May 1, 1824.
Printed by Englewood & Co.



INDIAN ANTelope, ANTelope CERVICAPRA, Lin.

1. Young in Mouth of Jan. 1822. Antelope bilineata. Lin Ms 2. same Individual in end of Oct. 1823. 3. Adult.

and

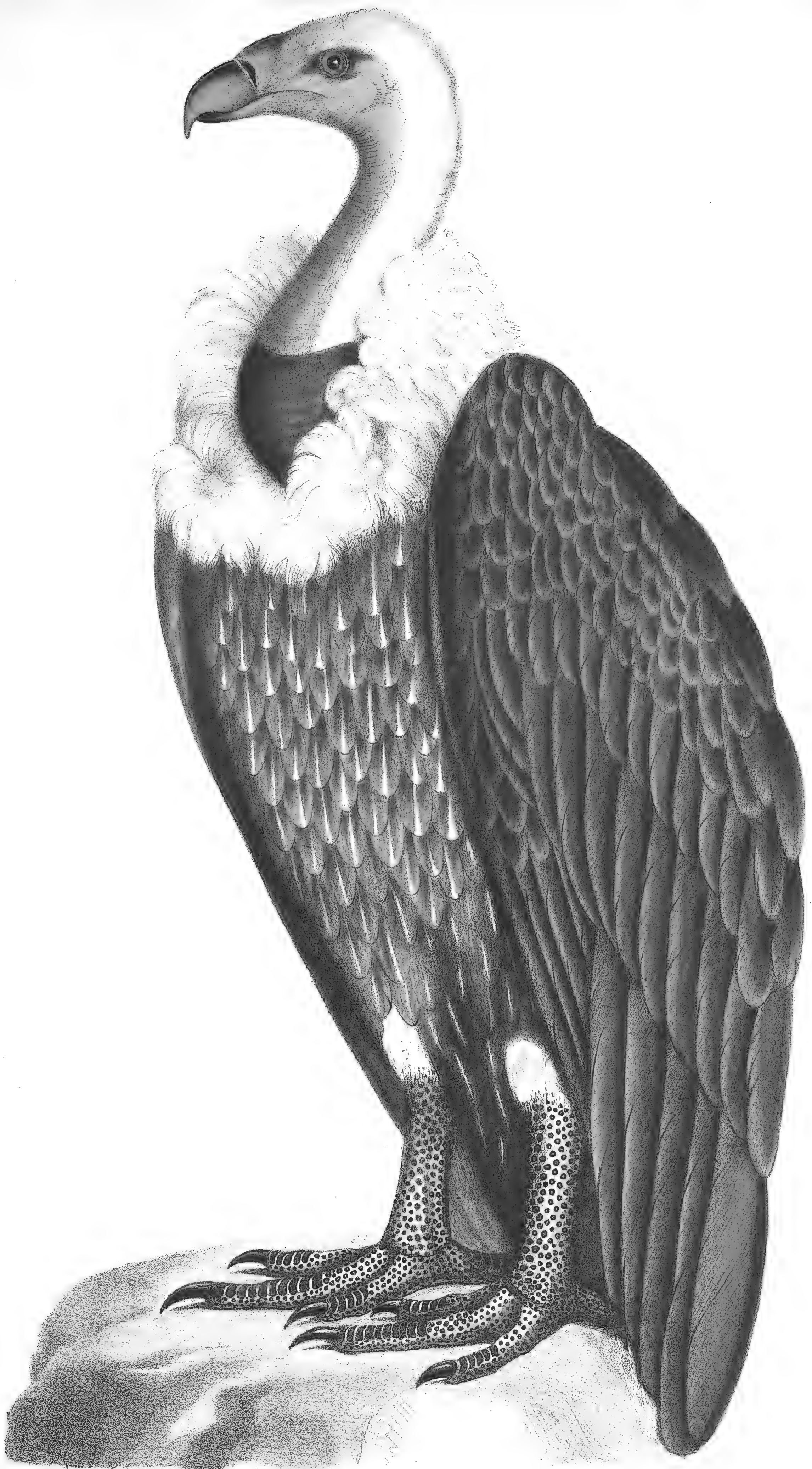


Printed by W. Day.

INDIAN ANTELOPE, ANTELOPE CERVICAPRA. Lin.
India.

1...Young. 2...Adult.

Published 1820 by Parbury Allen & Co. Leadenhall Street.



Drawn & lith. by Waterhouse Hawkins.

Printed by Engelmann & Co.

WHITE BACKED VULTURE. *VULTUR LEUCONOTA.*



Drawn & Engraved by Thomas S. Jackson.

Printed by Engelmann & Co

BENGAL VULTURE. VULTUR BENGALENSIS (Lath) 1. HEAD OF VULTUR PONDICERIANUS. 2. HEAD OF VULTUR MONACHUS.
half the natural size. from living Specimens.



WHITE DOTTED EAGLE. AQUILA PUNCTATA.

Cawnpore $\frac{3}{4}$ Nat. length.

Drawn & Engr'd by W. Hawkins

Printed by Engelmann & Co.



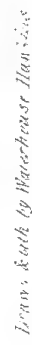
WHITE-BELLIED EAGLE.
AQUILA BISASCIATA.
2 3/4 N. A. Length. Ceylon. March 1802.



Drawn & lith. by Waterhouse Hawkins.

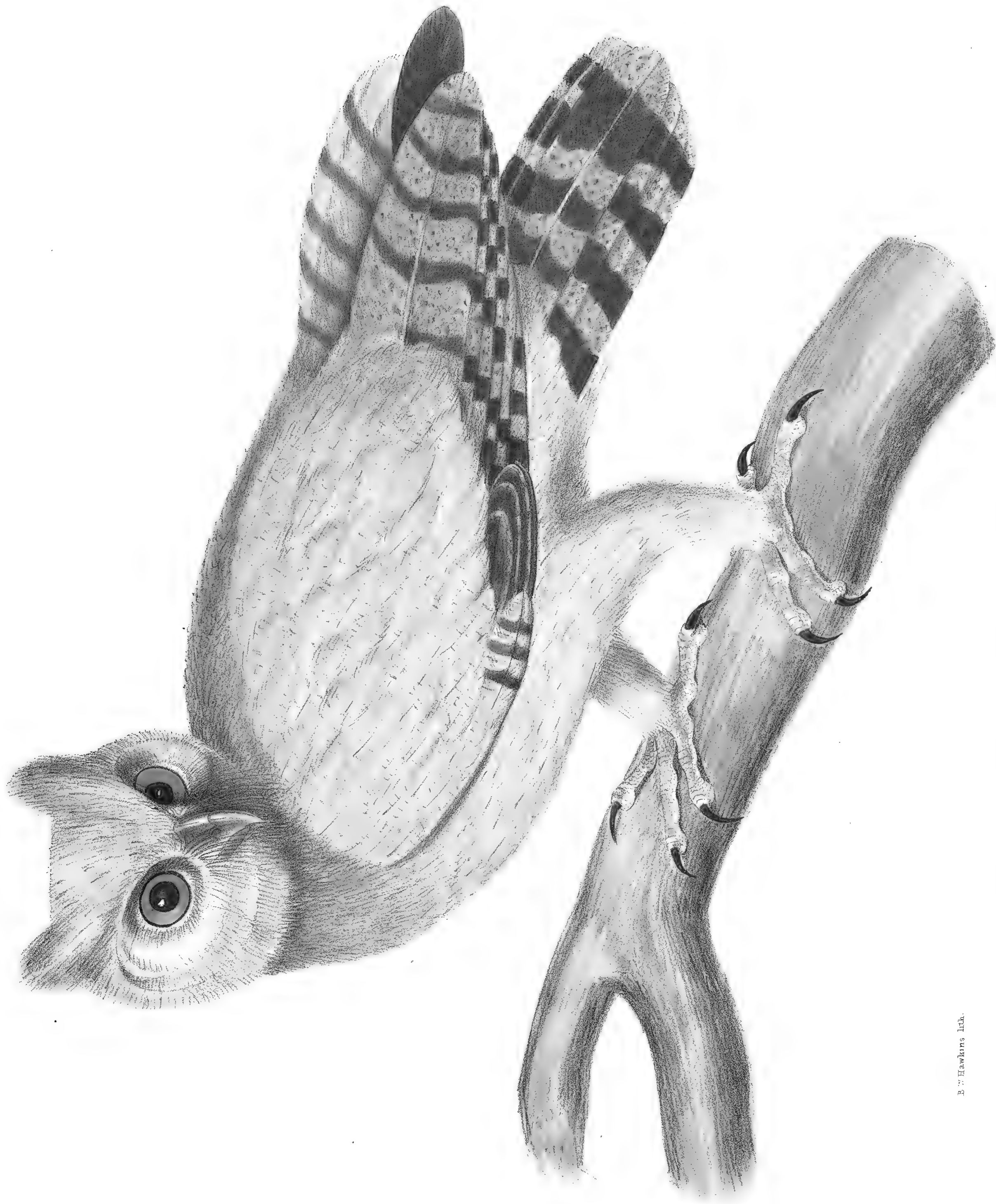
Printed by Engelmann & Co.

LINED FISHING EAGLE. *HALIAETUS LINEATUS* Gray.



Printed by Friedman & Co

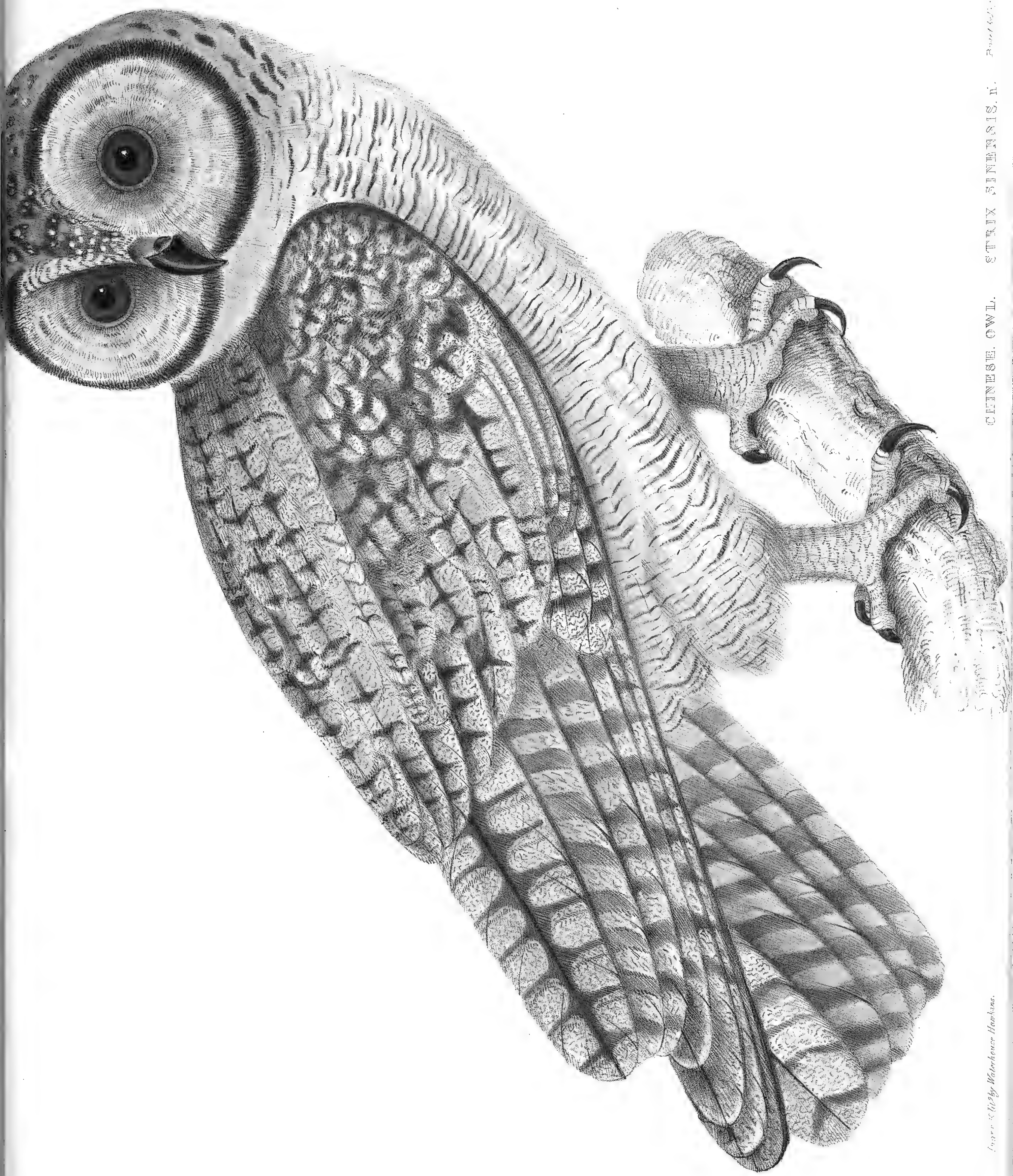
$$\mathbb{P}^1 \times \mathbb{A}^1 \times \mathbb{N} \times \mathbb{F}_4 \times \mathbb{S}^1 \times \mathbb{H} \times \mathbb{I} \times \mathbb{G} \times \mathbb{W}^2 \times \mathbb{A}^2 \times \mathbb{U} \times \mathbb{D} \times \mathbb{W}^2 \times \mathbb{N} \times \mathbb{C} \times \mathbb{D} \times \mathbb{U} \times \mathbb{D} \times \mathbb{R}^2. \quad \text{Gray.}$$



B. W. Hawkins. lith.

STRIX COROMANDRA, Lath. COROMANDEL OWL. Lath. Coromandel.

Published 1829 by Parbury Allen & Co. Leadenhall Street.
Printed by W. Day.



CHINESE OWL. *STRIX SINENSIS*. II. *Barnard's Ornithology*.



Drawn from Nature & on Stone by Waterhouse Hawkins.

Printed by Engelmann & Co

ALMORAH JAY. GARRULUS VIGORSII.

Nat. Size

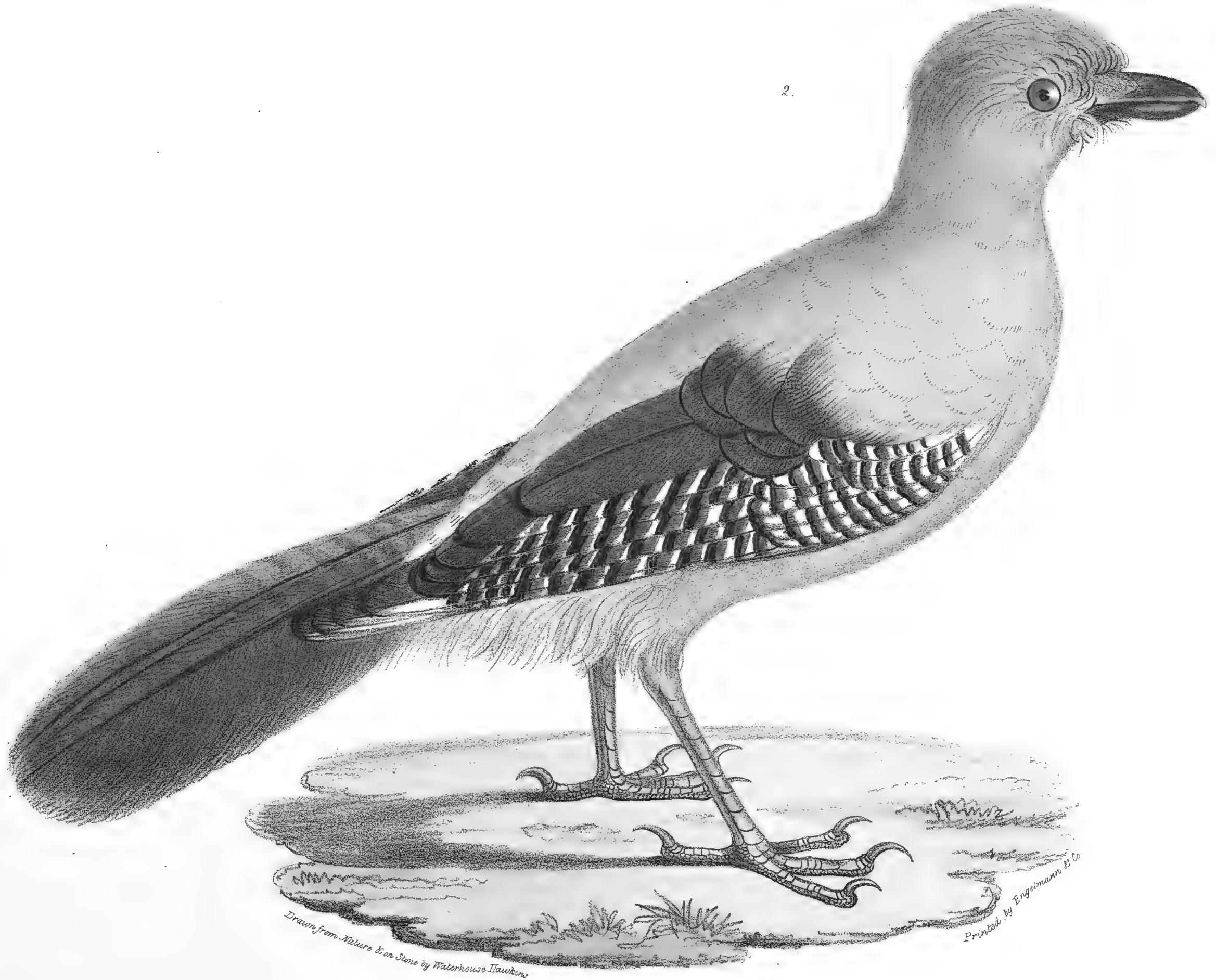
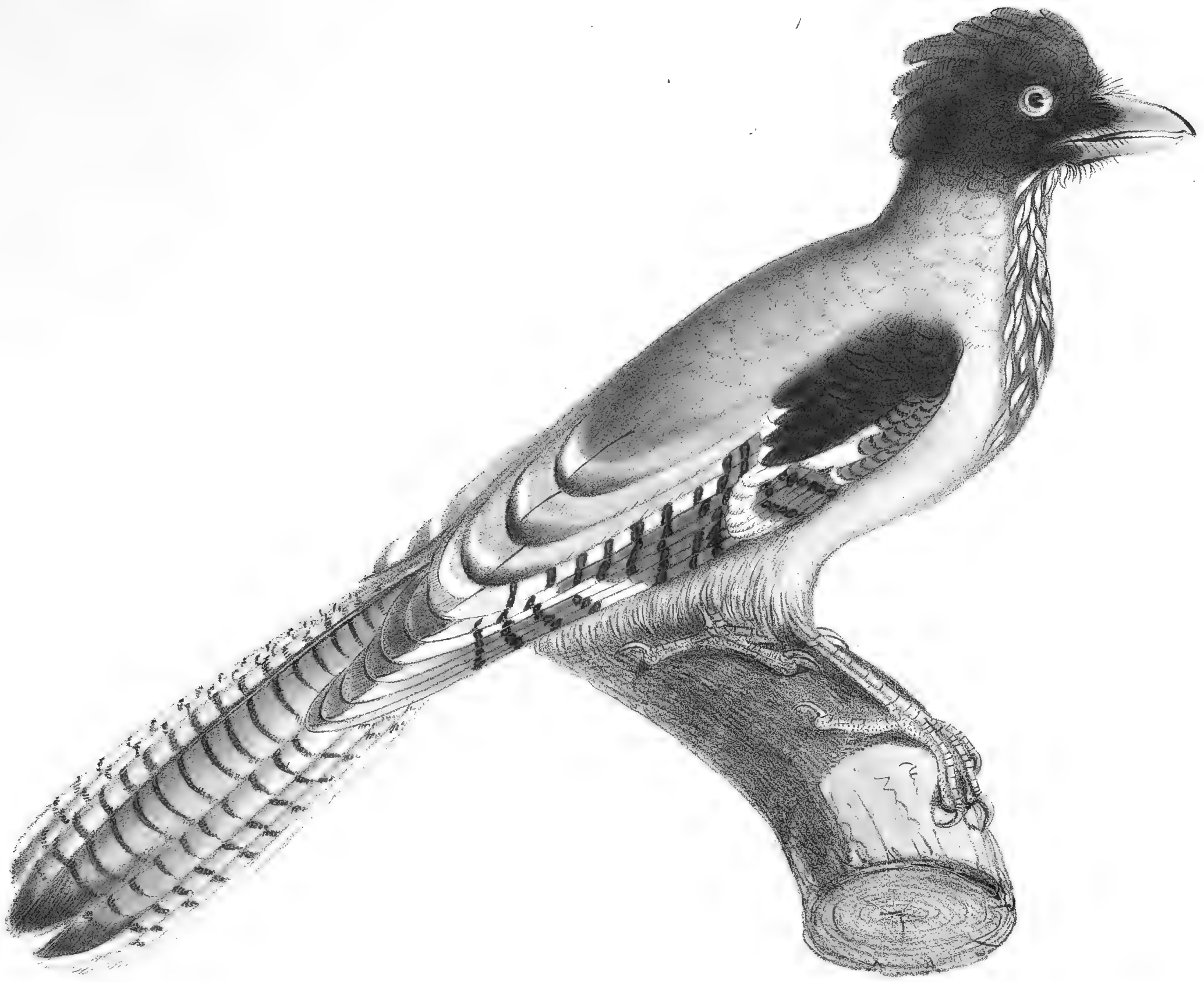


Fig 1 GARRULUS GULARIS. Nob. GULAR JAY.

Fig. 2. GARRULUS ORNATUS. Nob BEAUTIFUL JAY.
ALMORAH. Nat. Size



Drawn from Nature & on Stone by Waterhouse Hawkins

Printed by Engelmann & Co.

KITTA VENATORIUS. Noh. HUNTING CROW. Lath Hist



PICA VAGABUNDA. Weigler. RUFOUS N A P E D.
Kereyli. Natives of Calcutta.

R. W. Edwards. Lith.

Published 1829 by T. & W. Allen & Co. London. Sold by
F. & J. W. Day.



H. W. Hawkins lith.

PICA SINENSIS. n CHINESE MAGPIE.
India.

*Published 1829 by Parbury Allen & Co. Leadenhall Street.
Printed by W. Day.*

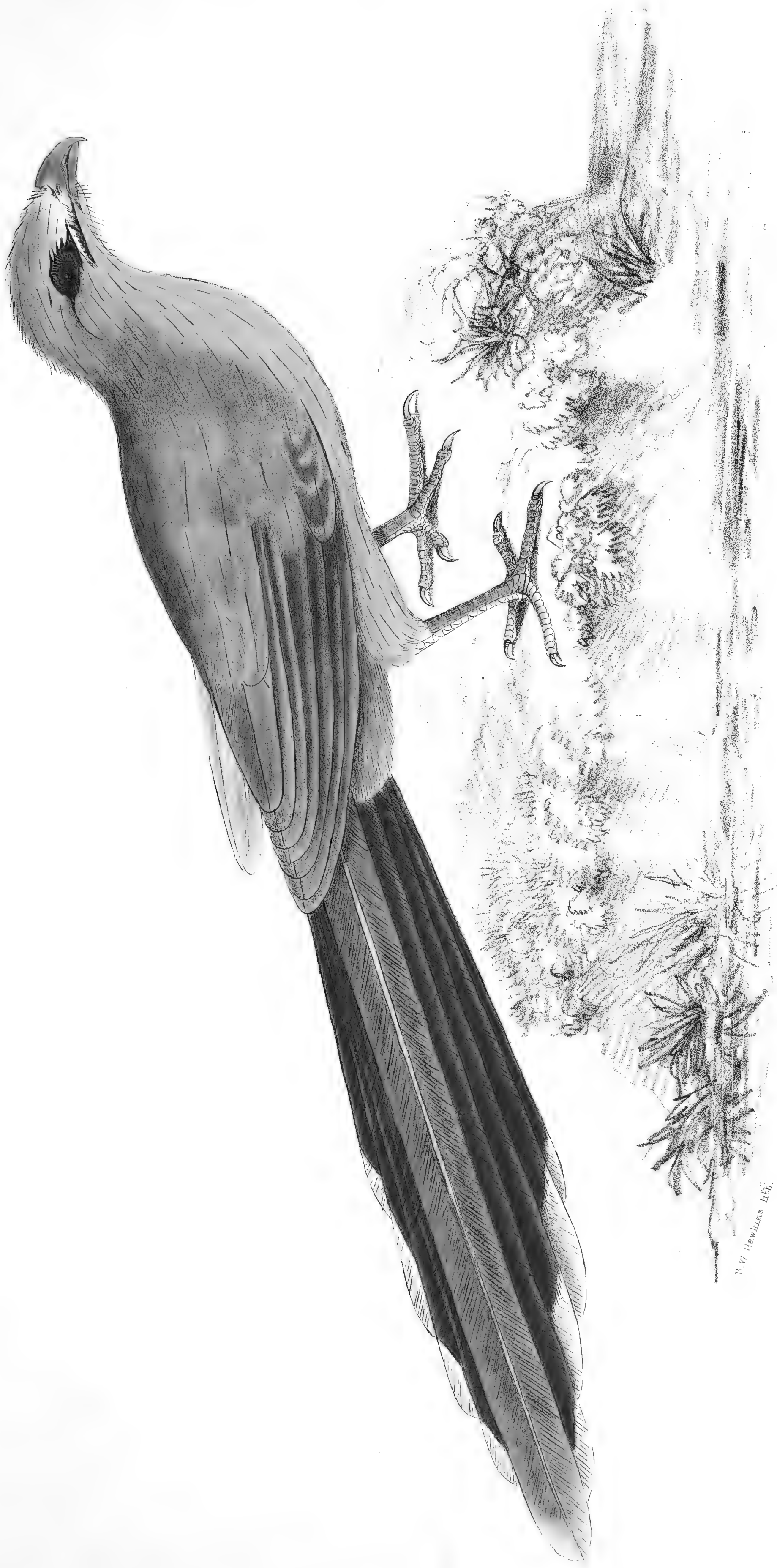


Drawn & lith. by Waterhouse Hawley.

SMALL PARADISE BIRD. PARADISEA MINOR

From a living specimen in the aviary of Mr. Beale, at London.

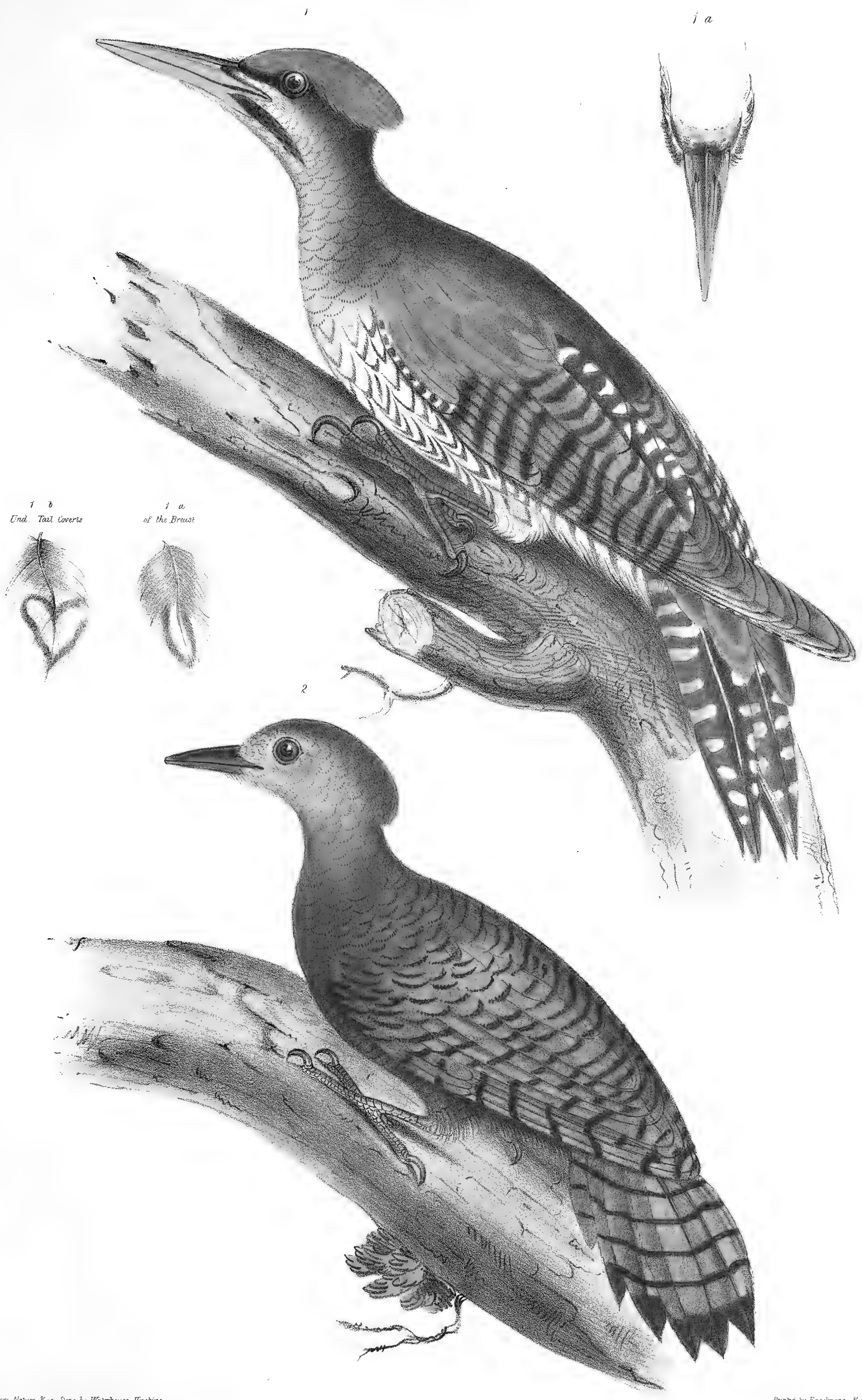
Drawn from a living specimen in the aviary of Mr. Beale, at London.



CENTROPUS SIKKIMENSIS SHRIKE CUCKOO.

Latham.

Published 1879 by Parbury Allen & Co. Leadenhall Street.
Printed by H. Day

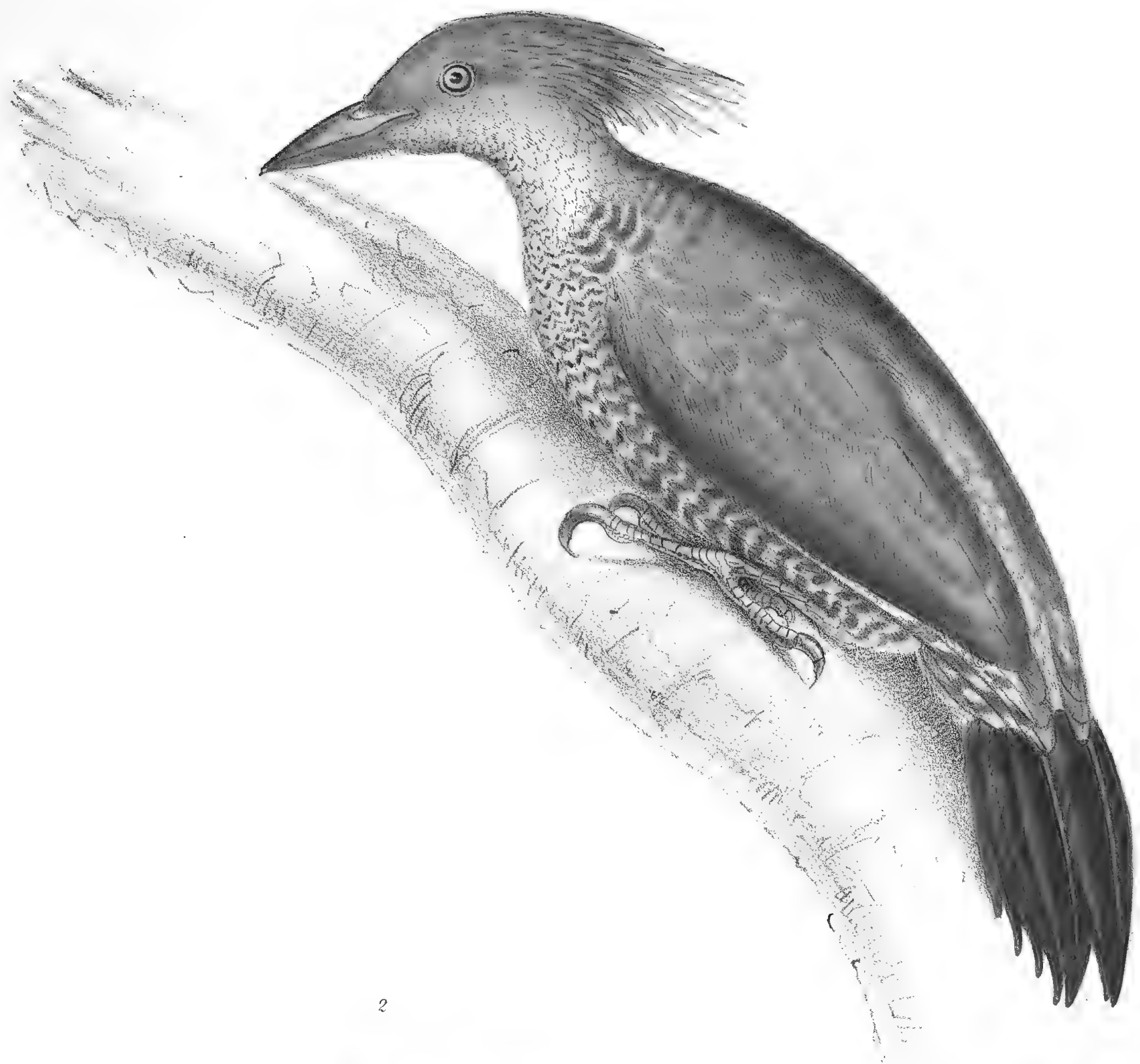


Drawn from Nature & on Stone by Waterhouse Hawkins.

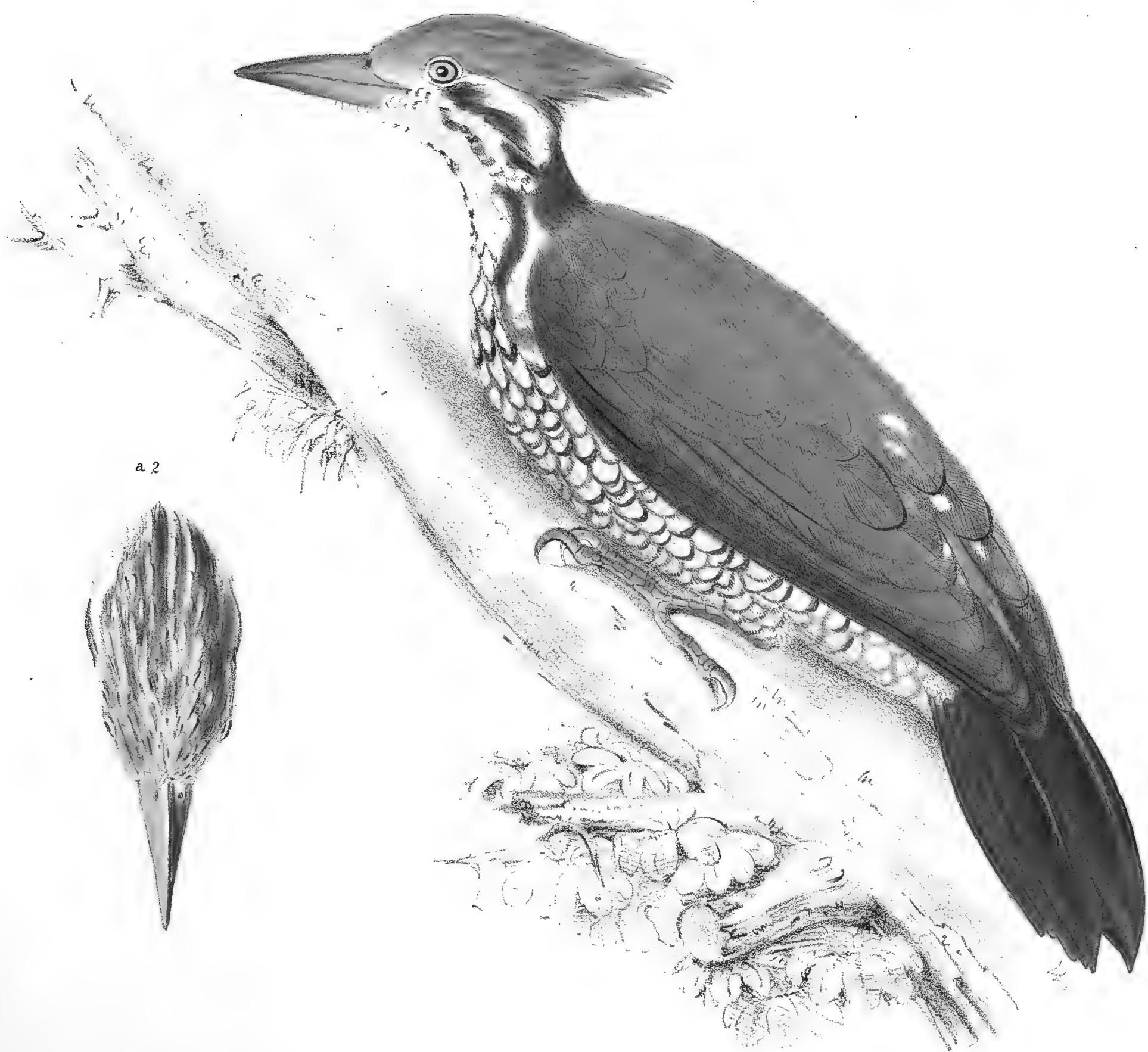
Printed by Engelmann & Co

1. PICUS DIMIDIATUS Temm ALMORAH WOODPECKER.

2 PICUS RUFUS. Lath. RUFUS INDIAN WOODPECKER. Lath.



2

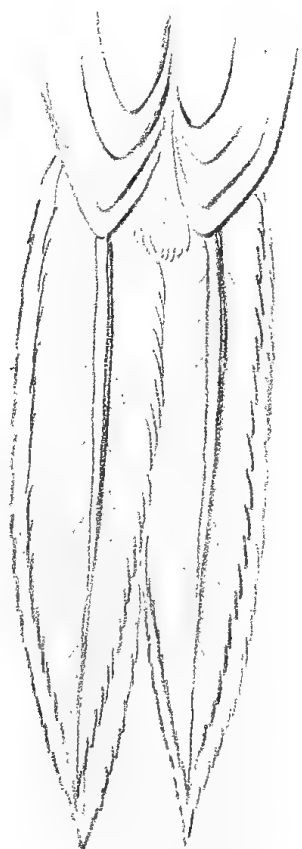
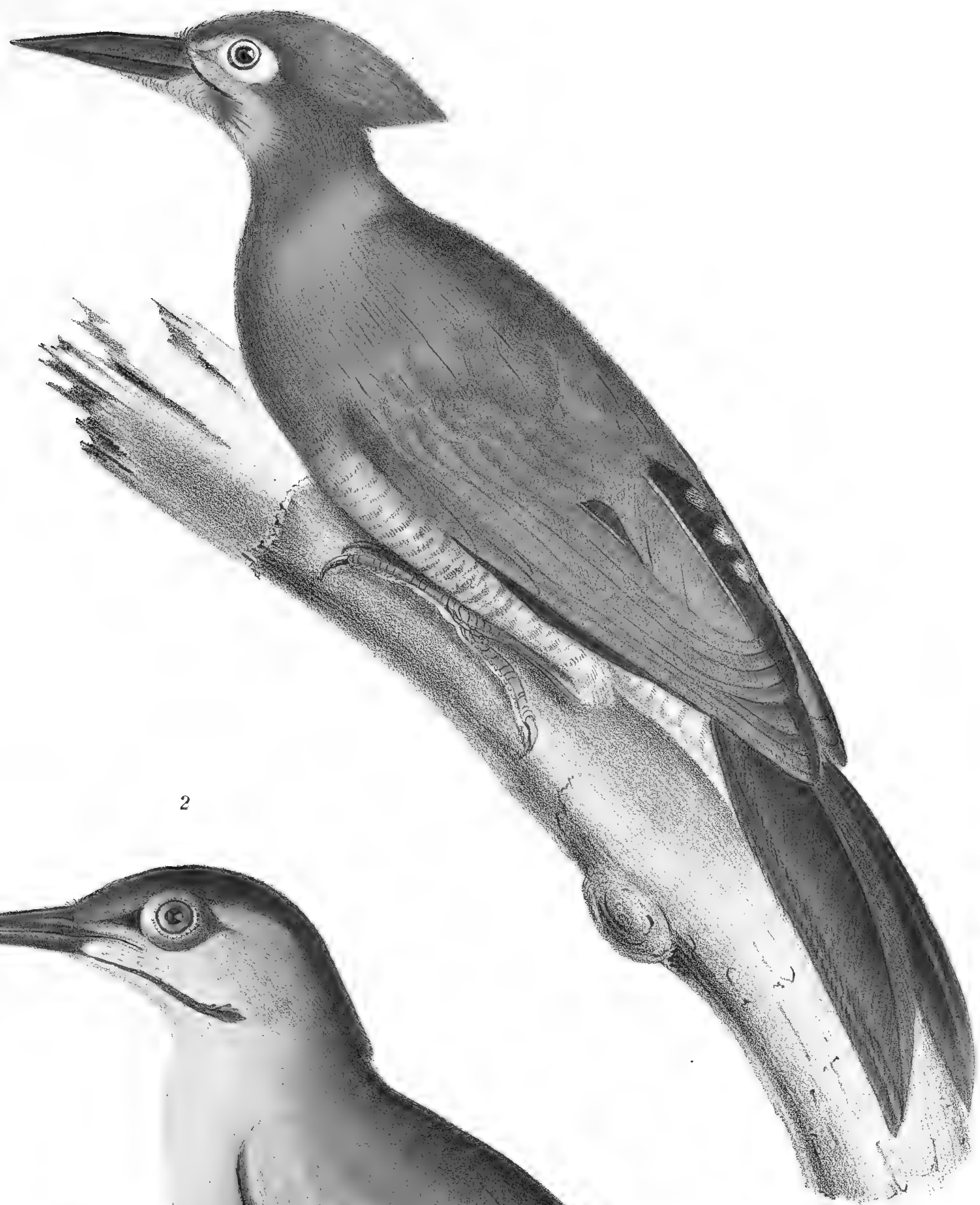


a 2

Drawn from Nature & on Stone by Waterhouse Hawkins.

Printed by Engelmann & Co.

1, PICUS MINIATUS Forst CRIMSON WOODPECKER 2, PICUS TIGA Horst INDIAN. 3, TOED WOODPECKER. a2, HEAD OF FEMALE.

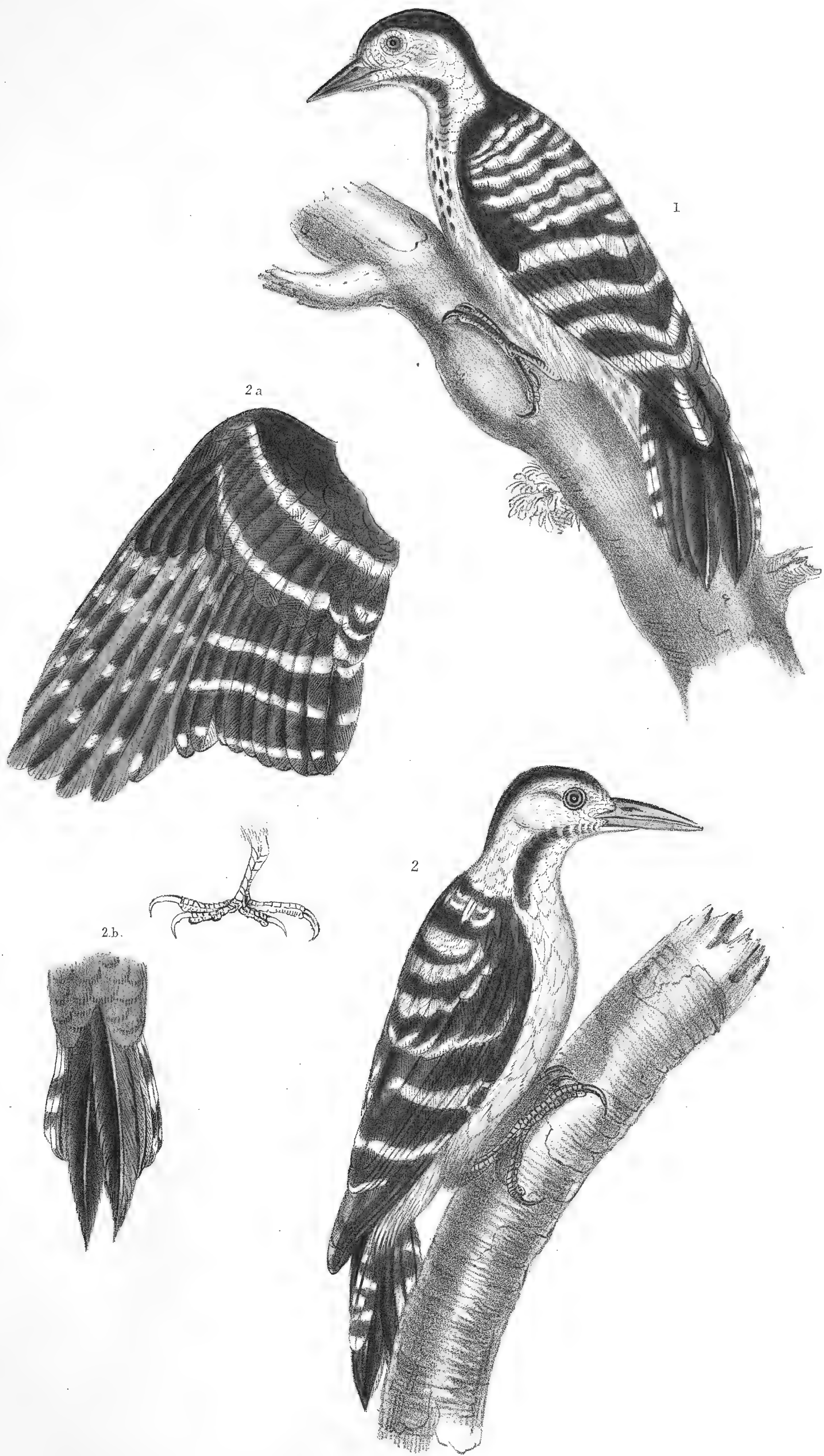


Drawn from Nature & on Stone by Waterhouse Hawkins.

Printed by Englemann & Co

1. PICUS NEPAULENSIS Nob NEPAUL WOODPECKER .

2. PICUS BARBATUS Nob MOUSTACHE WOODPECKER .



B.W.Hawkins del^t

PICUS MACUL. LESSER SPOTTED WOODPECKER.
1 Male. — 2 Female. — 2 a. Wing — 2 b. Tail.

Pub^d by Treuttel & Wurtz Soho Square.

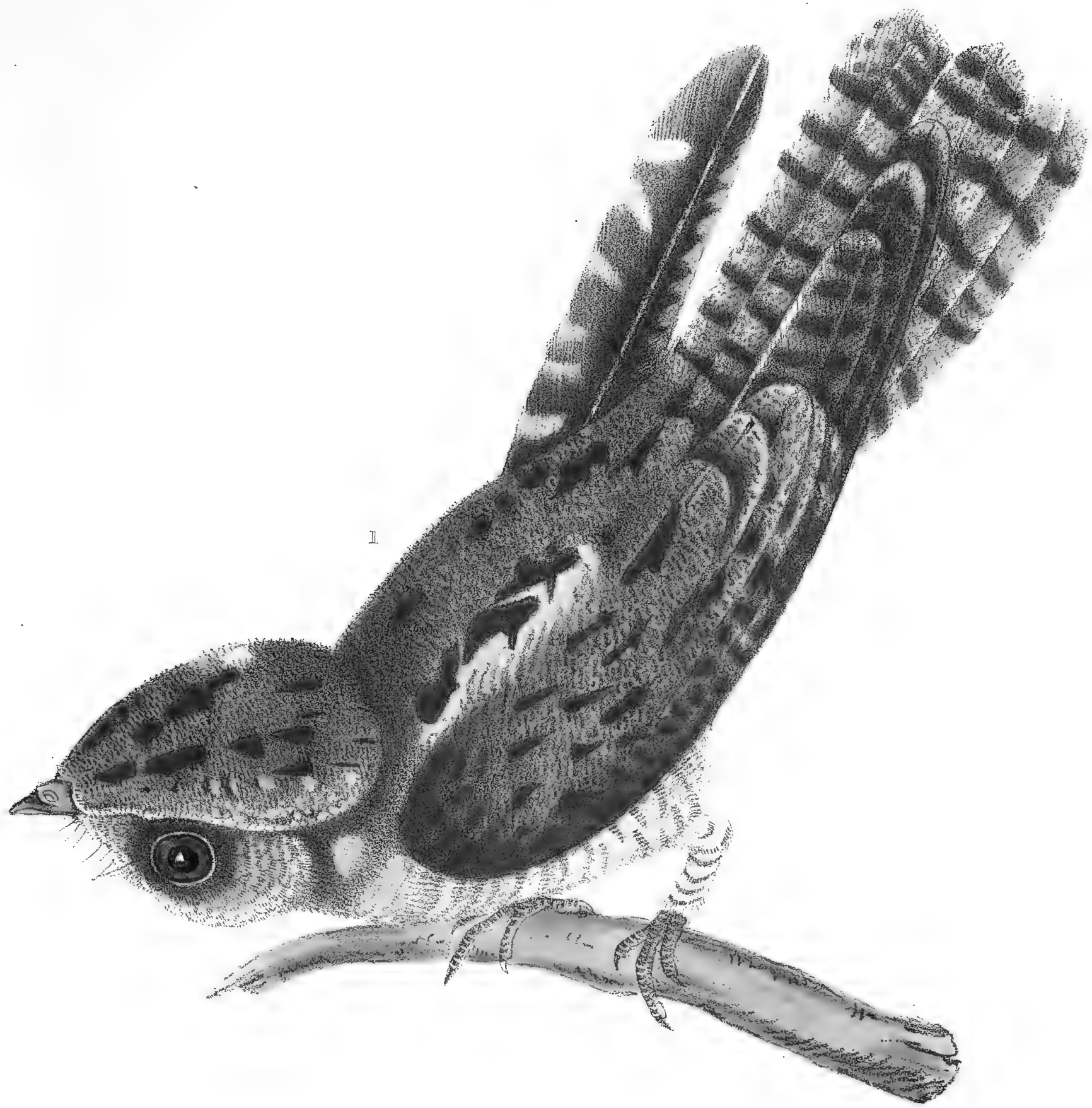


From the collection of the British Museum

Engelmann, 1807

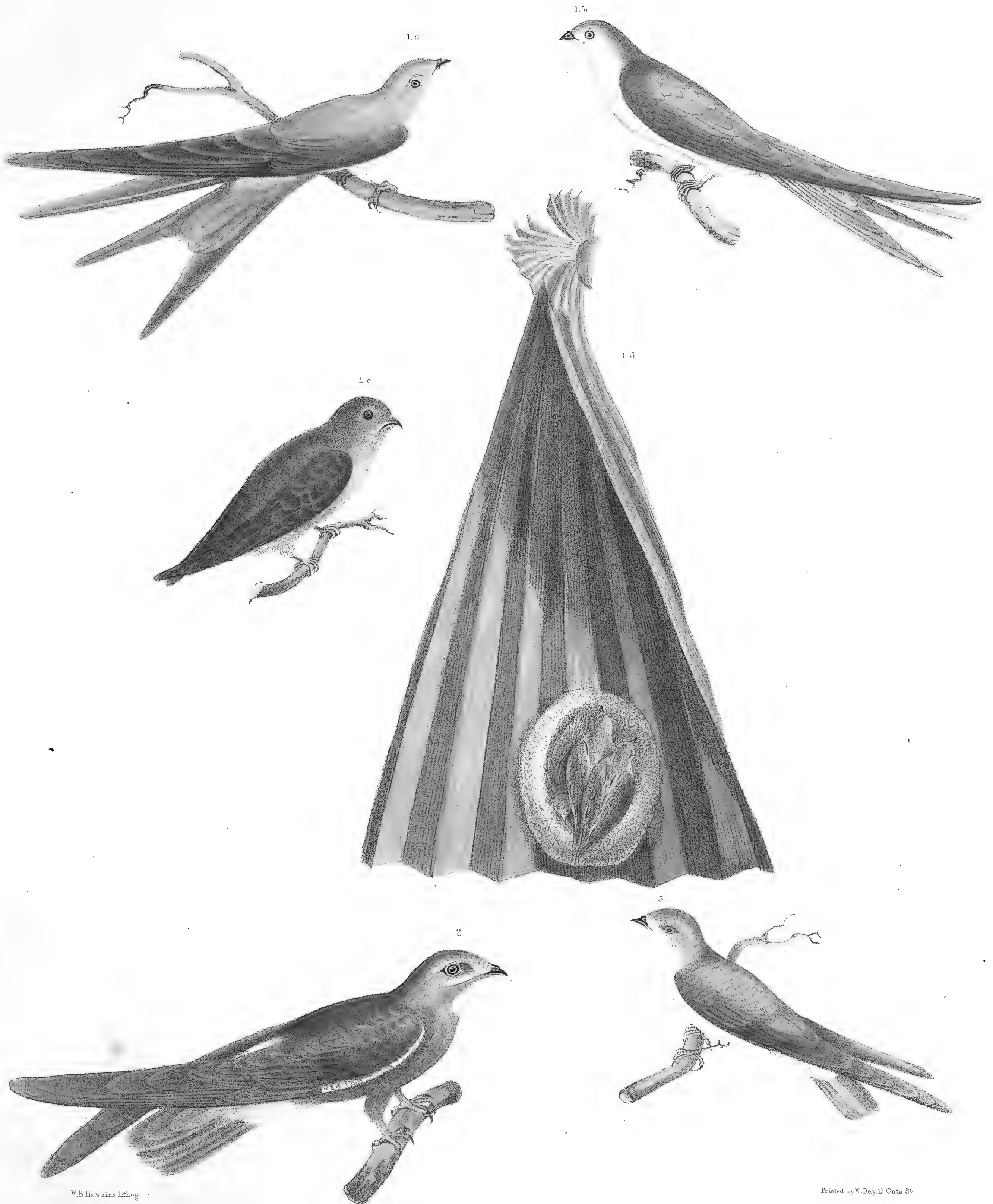
1. *PICUS MOLLUCENSIS*. Lath. BROWN WOODPECKER. Lath.
1a Male 1b, Female

2. *PICUS MAHARATTENSIS*. Lath. MAHARATTA WOODPECKER.
a Male b Female



I. CAPRIMULGUS INDICUS. Lath. INDIA GOAT-SUCKER.

II. CAPRIMULGUS ASIATICUS. Lath. BOMBAY GOAT-SUCKER.



W.B.Hawkins lithog.

Printed by W. Day, 17, Gate St.

1. EALASSIAN SWIFT, *CYPSELUS PALMARUM*, n. 2. *CYPSELUS AFFINIS*, n. 2 ALLIED SWIFT. 3. CHINESE MARTIN, Lath. *HIRUNDO CHINENSIS*, n.

1.a Male - 1.b Female. (1.c. 1.d.) Young & Nest on Palm Leaf.

Published 1829, by Parbury, Allen & Co. Leadenhall Street.



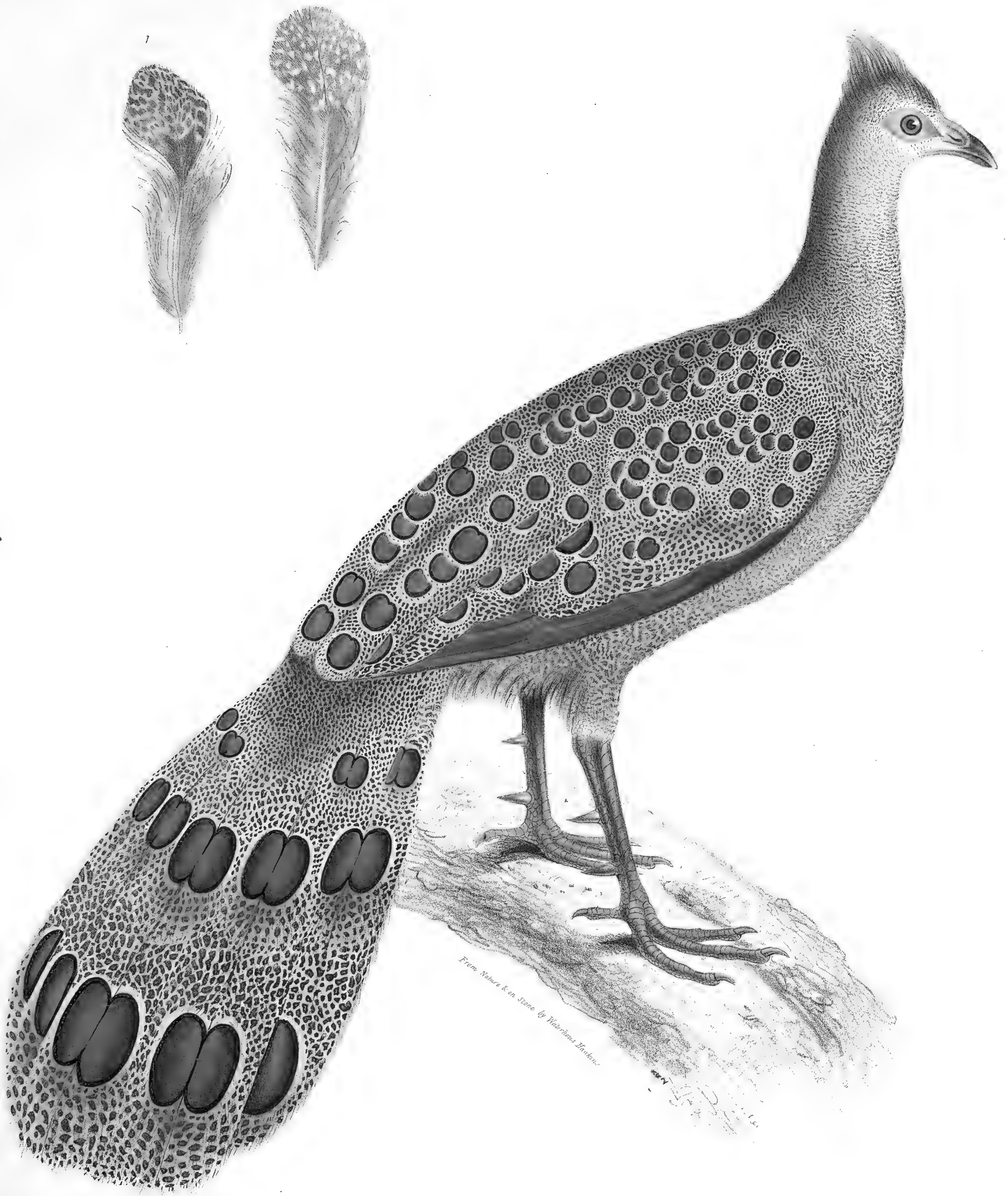
Printed by Engelmann & Co.

ARGUS PHEASANT. FEM. ARGUS PAFIONINUS ♀

Drawn & lith. by Wm. H. H. H.

2

1



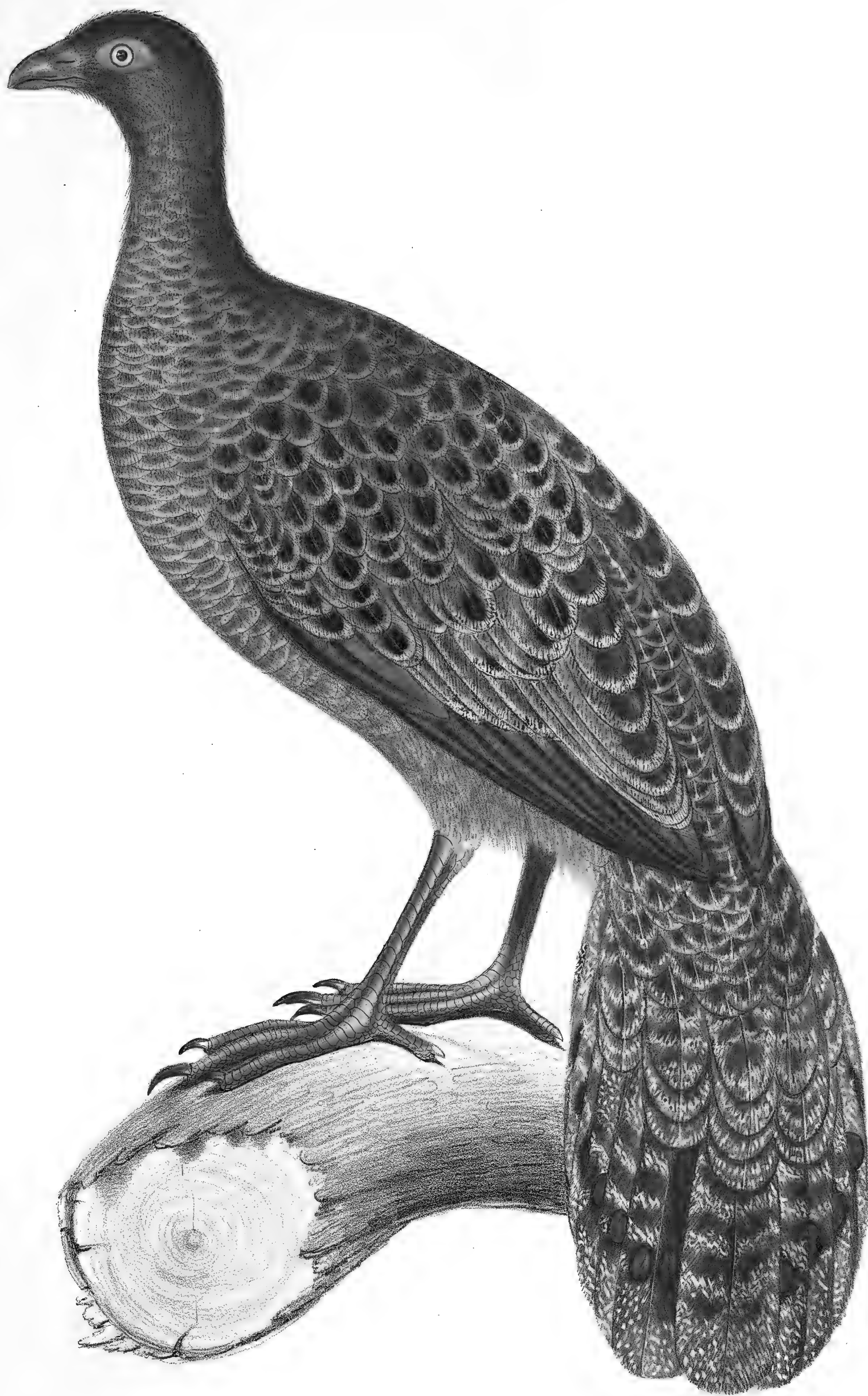
HARDWICKES POLYPLECTRON — POLYPLECTRON HARDWICKII Gray.

India, $\frac{3}{4}$, nat size.

1. Dorsal feather of *P. hardwickii*

2. *D. D. P. bicoloratum.*

Printed by Engelmann & Co.

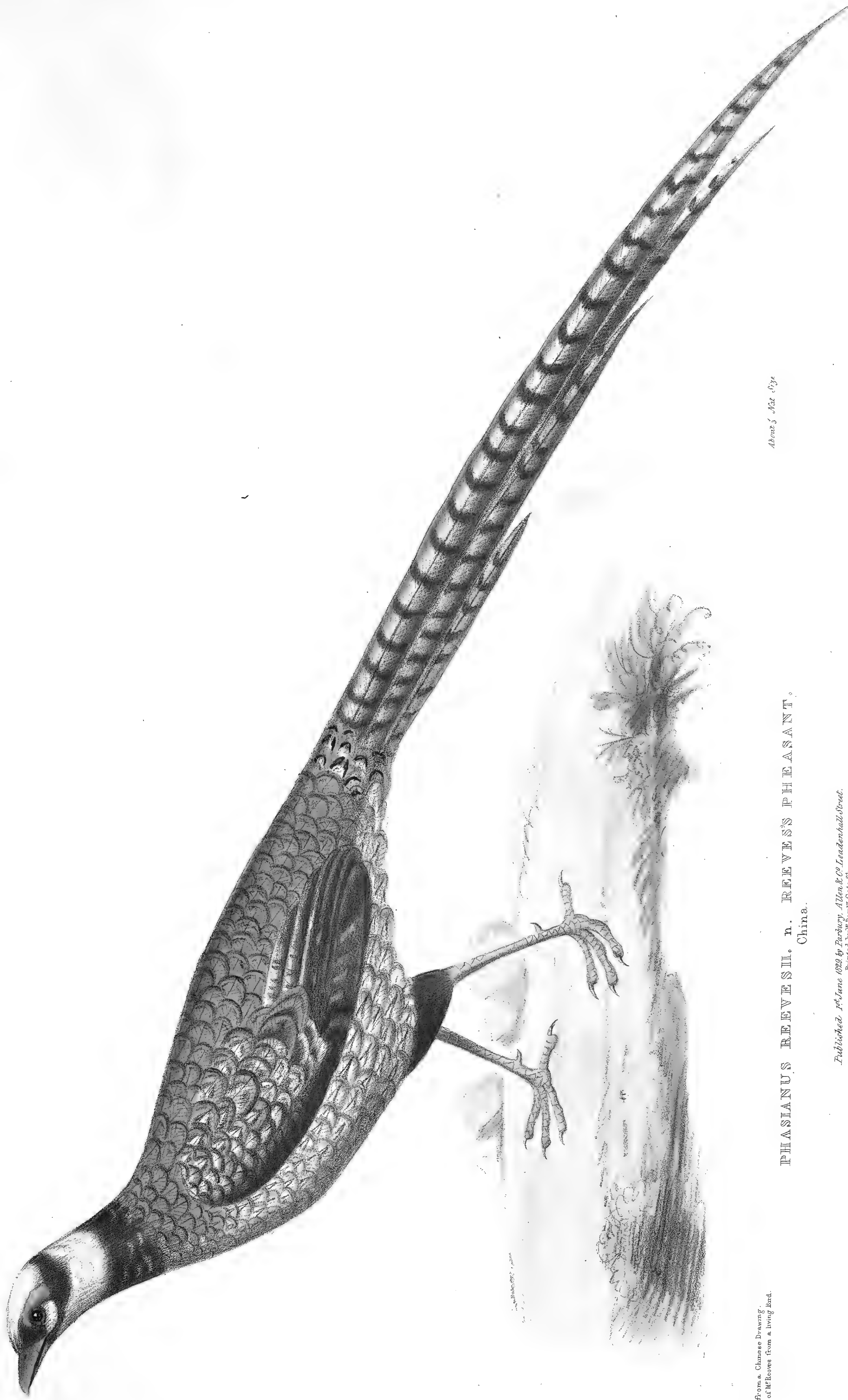


Drawn & lith. by Waterhouse Hawkins.

Printed by Engelmann & Co.

LINEATED PEACOCK PHEASANT. POLYPLECTRON LINEATUM Gray.

China $\frac{3}{4}$ nat Size.

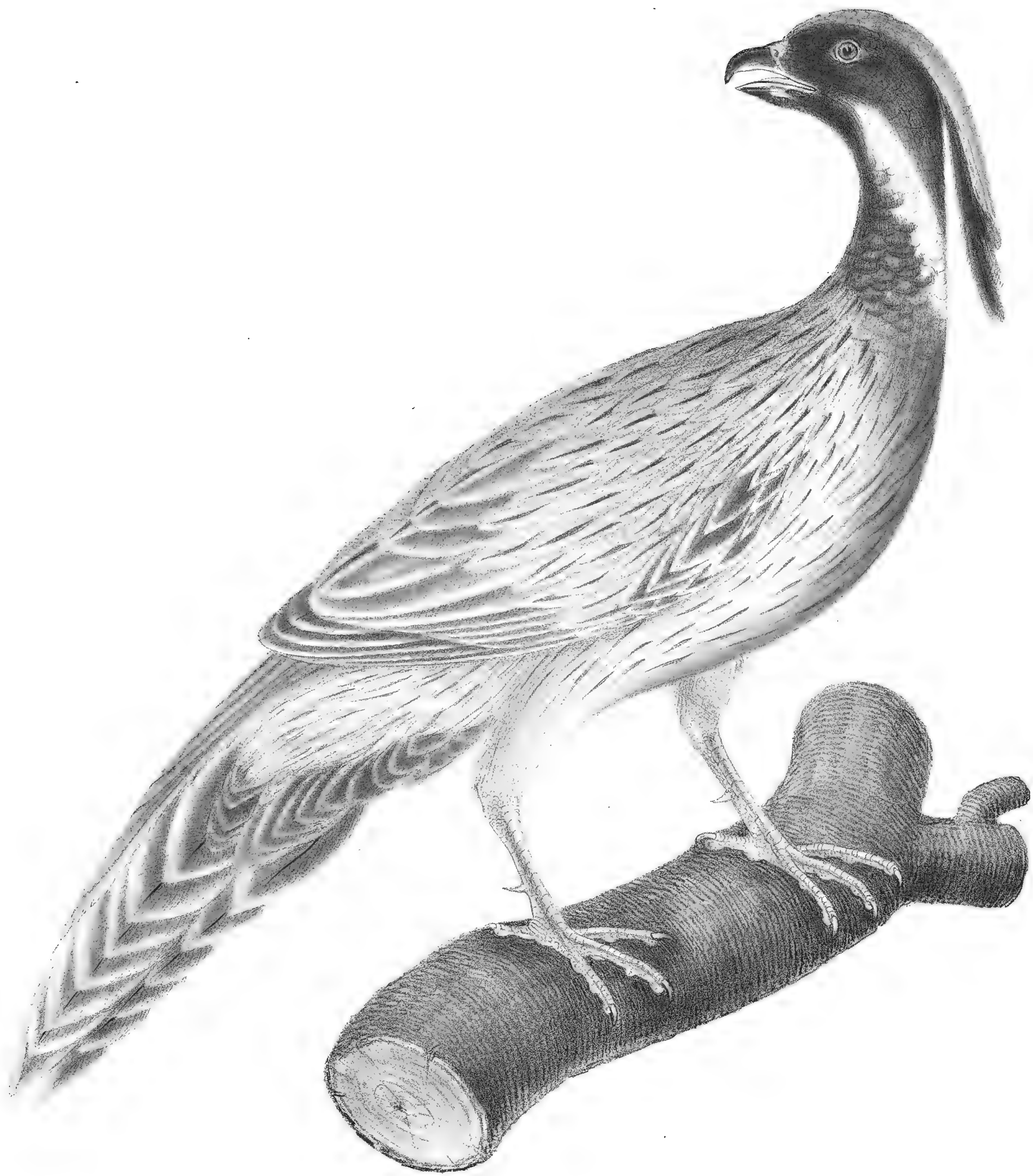


About 5 Feet High

PHASIANUS REEVESII. n. REEVES'S PHEASANT.
China.

Engraved by R.W. Hawkins from a Chinese Drawing.
made under the inspection of Mr. Leves from a living Bird.

Published 1st June 1829 by Parbury, Allen & Co. London and Bristol.
Printed by W. Bayly, Great St.



B. W. Hawkins lithog

Printed by Engelmann & Co.

PHASIANUS PUCRASIA ^{n.} PUCRAS PHEASANT, Lath.
ALMORAH WELLS, CALLED PUKRAS

Published June 1, 1829, by Parbury, Allen, & Co. Leadenhall St. London.



W. B. Hawkins del.

HIMALAYAN MONAL PHEASANT, *PHASIANUS HAMILTONII* GRAY, MALE.
Raidge Nepalese Nepal.

Published 1829 by Debury, Allen & Co. London, & 1831 by W. B. & Co. New York.

Printed by W. B. & Co. New York.

3 Nat. size.

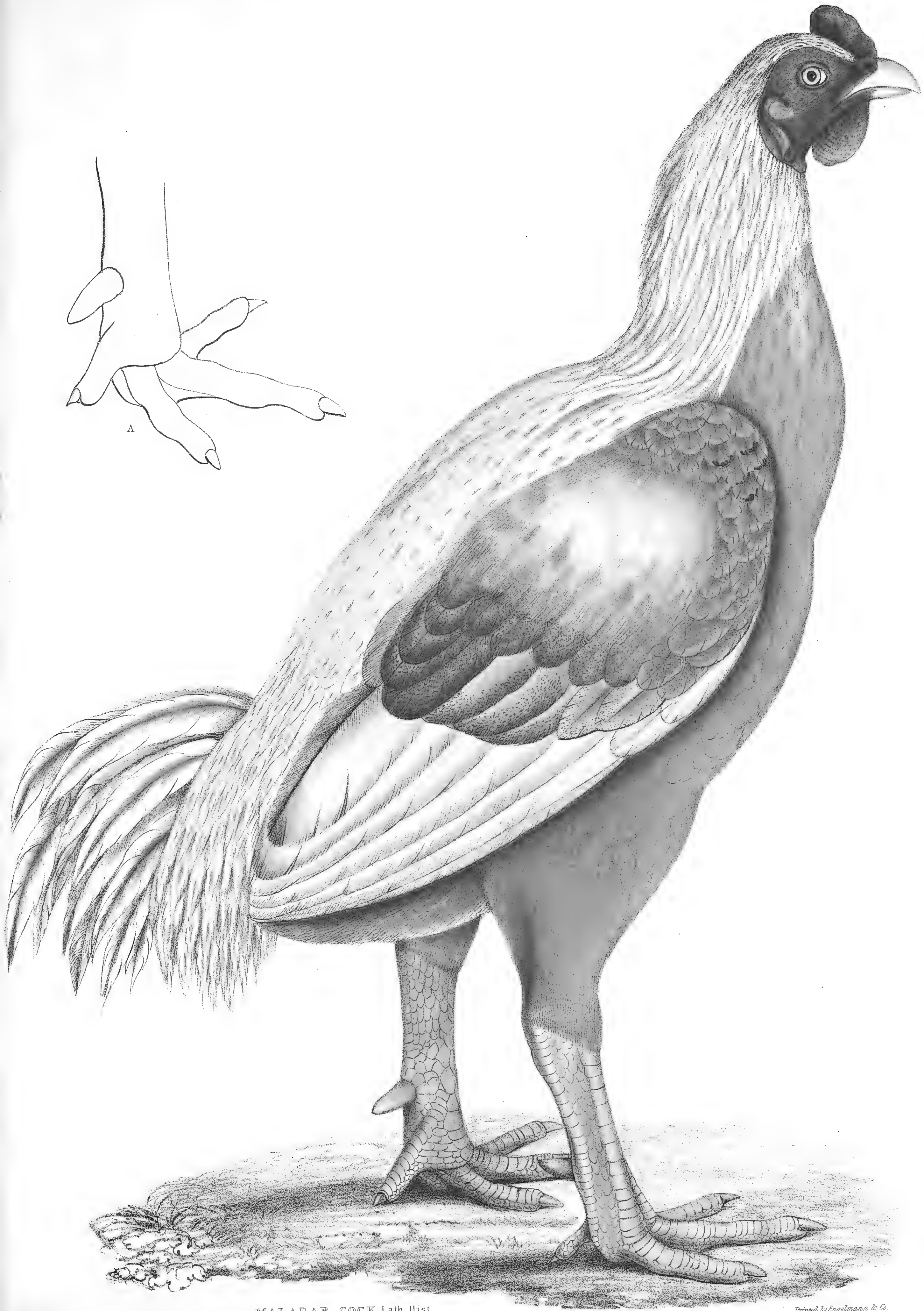


W. B. Haximus del. Printed by W. Day & Co. 512

PHASIANUS PURPUREUS - PURPLE PHEASANT-TENANG.

Phasianus erythroptthalmus ♀ Raffles!

Published 1829 by Parbury Allen & Co. London.

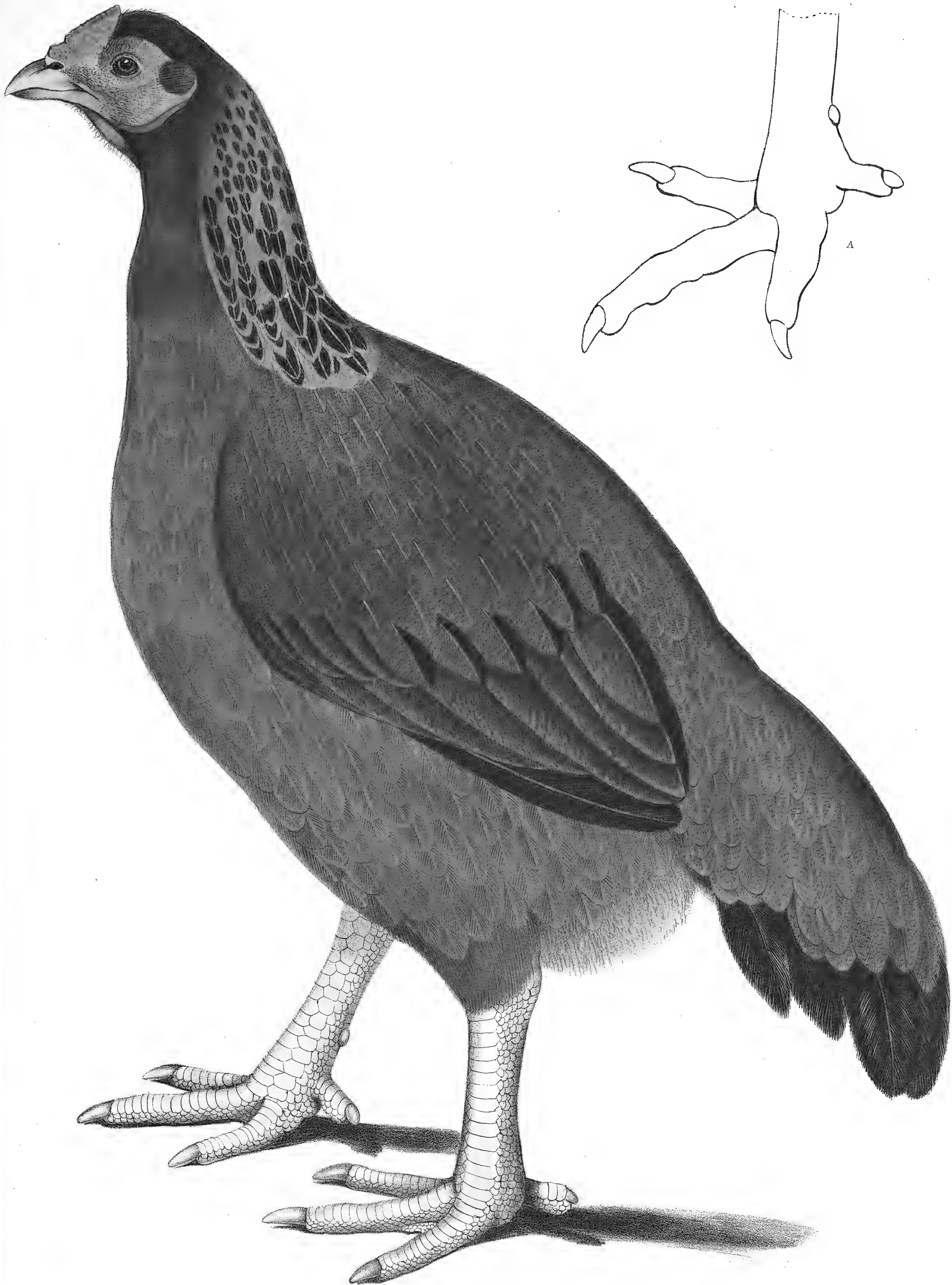


MALABAR COCK. Lath. Hist.
GALLUS GIGANTEA. Temm

A nat. Size

Drawn & lith. by Waterhouse Hawkins.

Printed by Engelmann & Co.



MALABAR HEN. Lath Hist. GALLUS GIGANTEUS ♀ Temm.

Common in the Doab. $\frac{4}{5}$ th Nat length. A. Foot Nat Size.



Drawn & lith. by W. Hawkins.

Printed by Engelmann & Co.

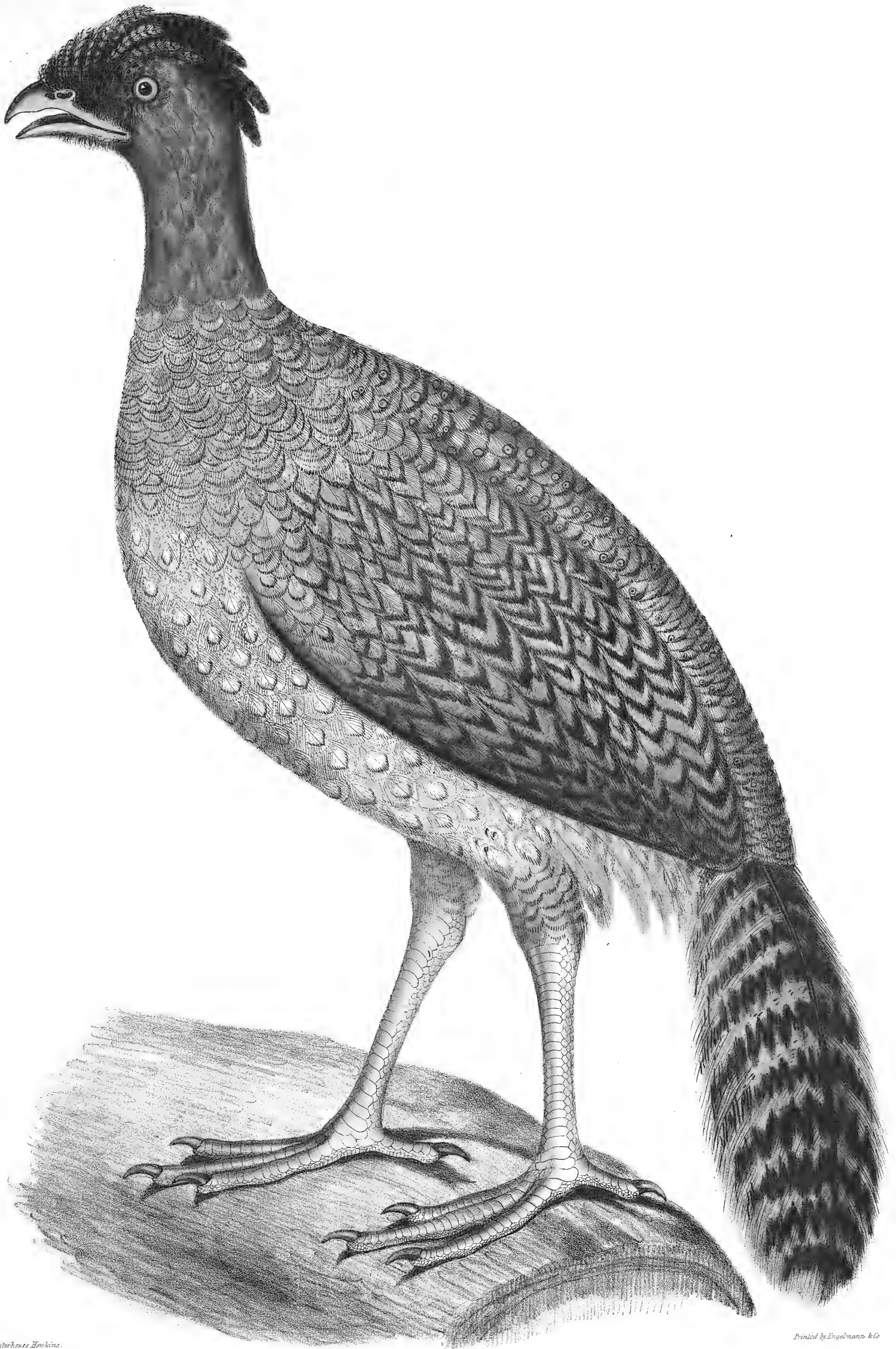
BLACK HEADED HORNED PHEASANT. SATYRA MELANOCEPHALA.
Adult male.



Drawn & lithog. by Waterhouse Hawkins.

Printed by Engelmann & Co.

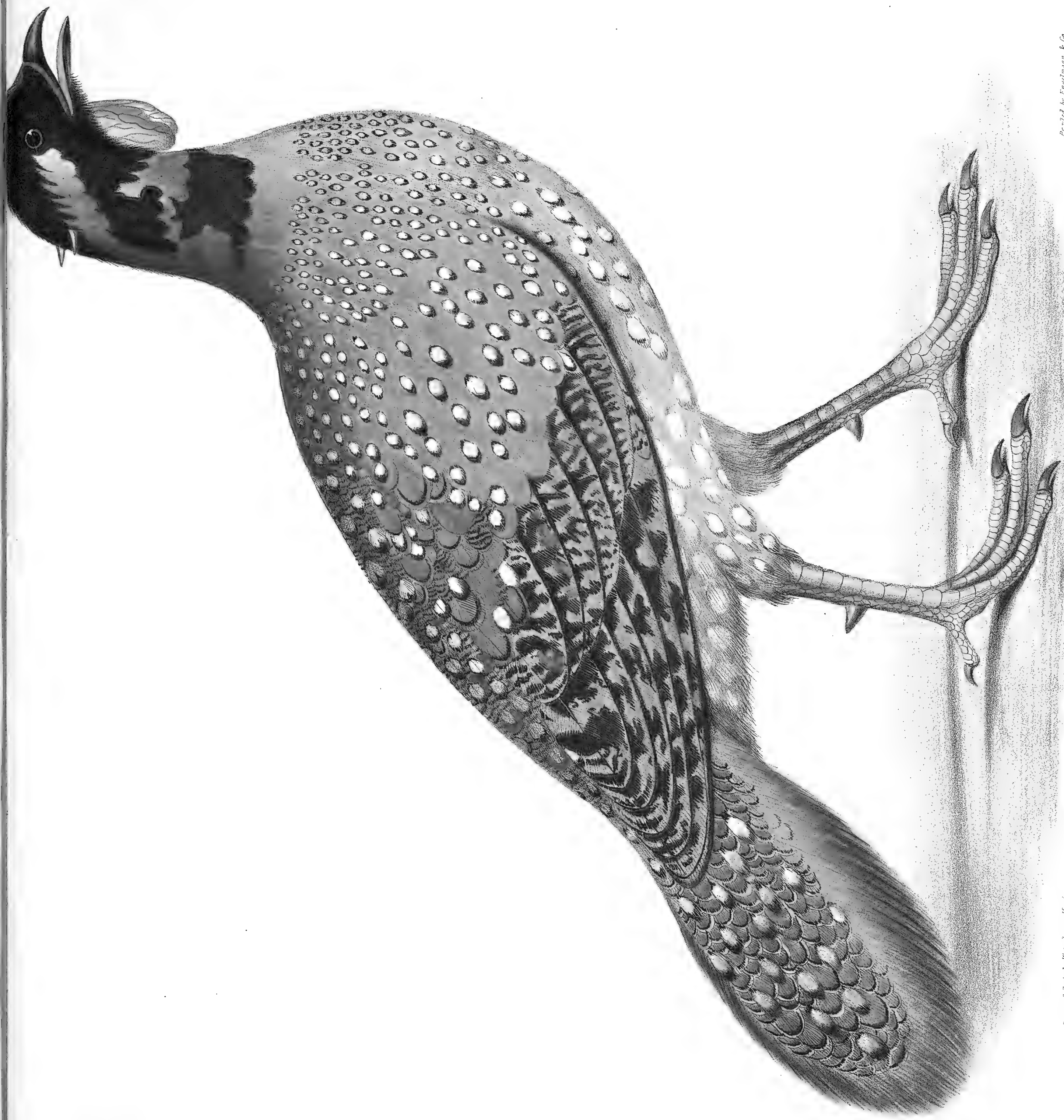
BLACK HEADED PHEASANT male PHASIANUS? MELANOCEPHALUS.



Drawn & Col'd by Waterhouse Hawkins.

Printed by Engelmann & Co

BLACK HEADED PHEASANT female PHASIANUS? MELANOCEPHALUS.♀



Drawn & Etch by Waterhouse Hancock

Printed by Engelmann & Co.

PENNANT'S HORNED PHEASANT. SATYRA PENNANTI.

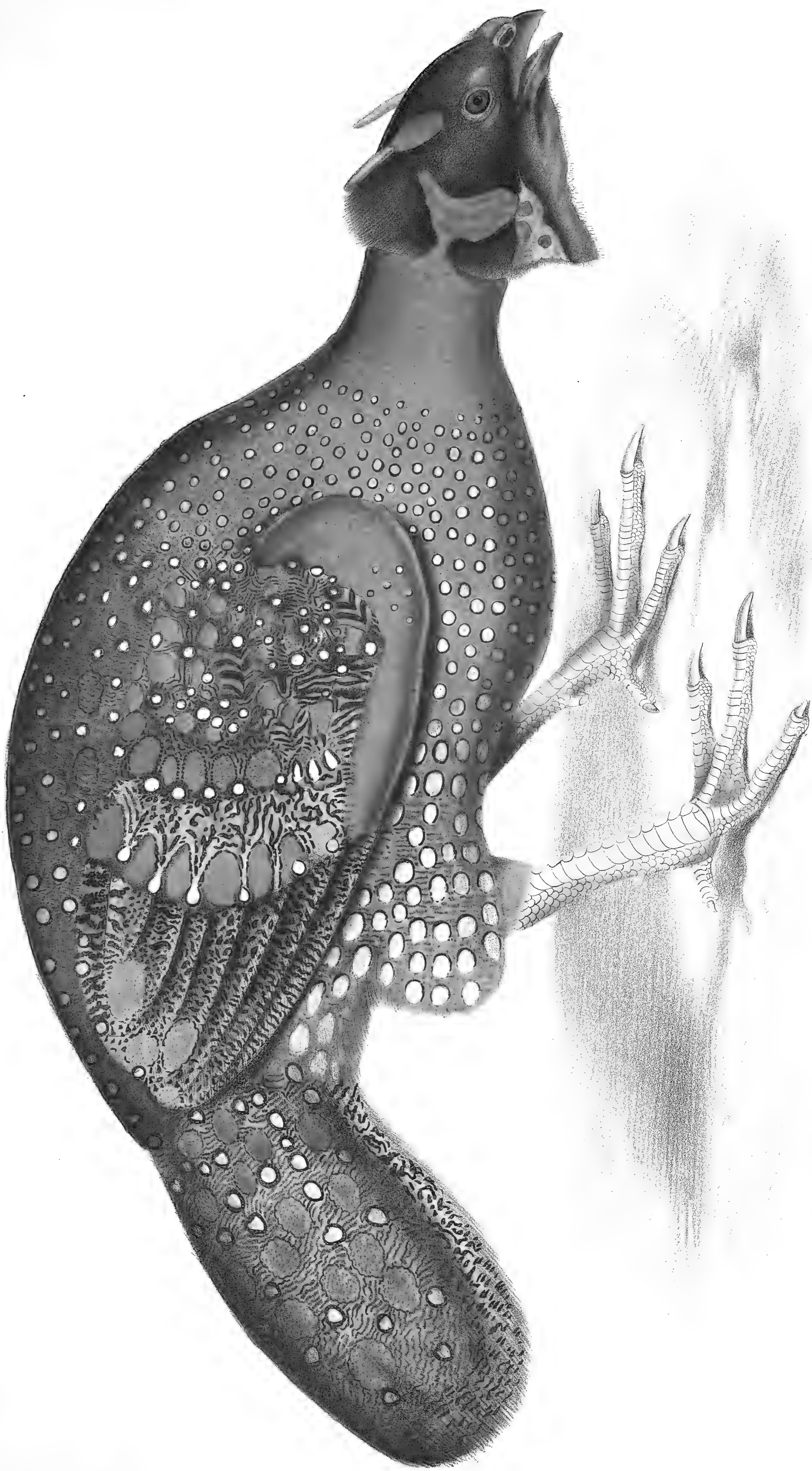


Drawn & lith. by Waterhouse Hawkins.

Printed by Engelmann & Co.

CHINESE HORNED PHEASANT. SATYRA TEMMINCKII male.

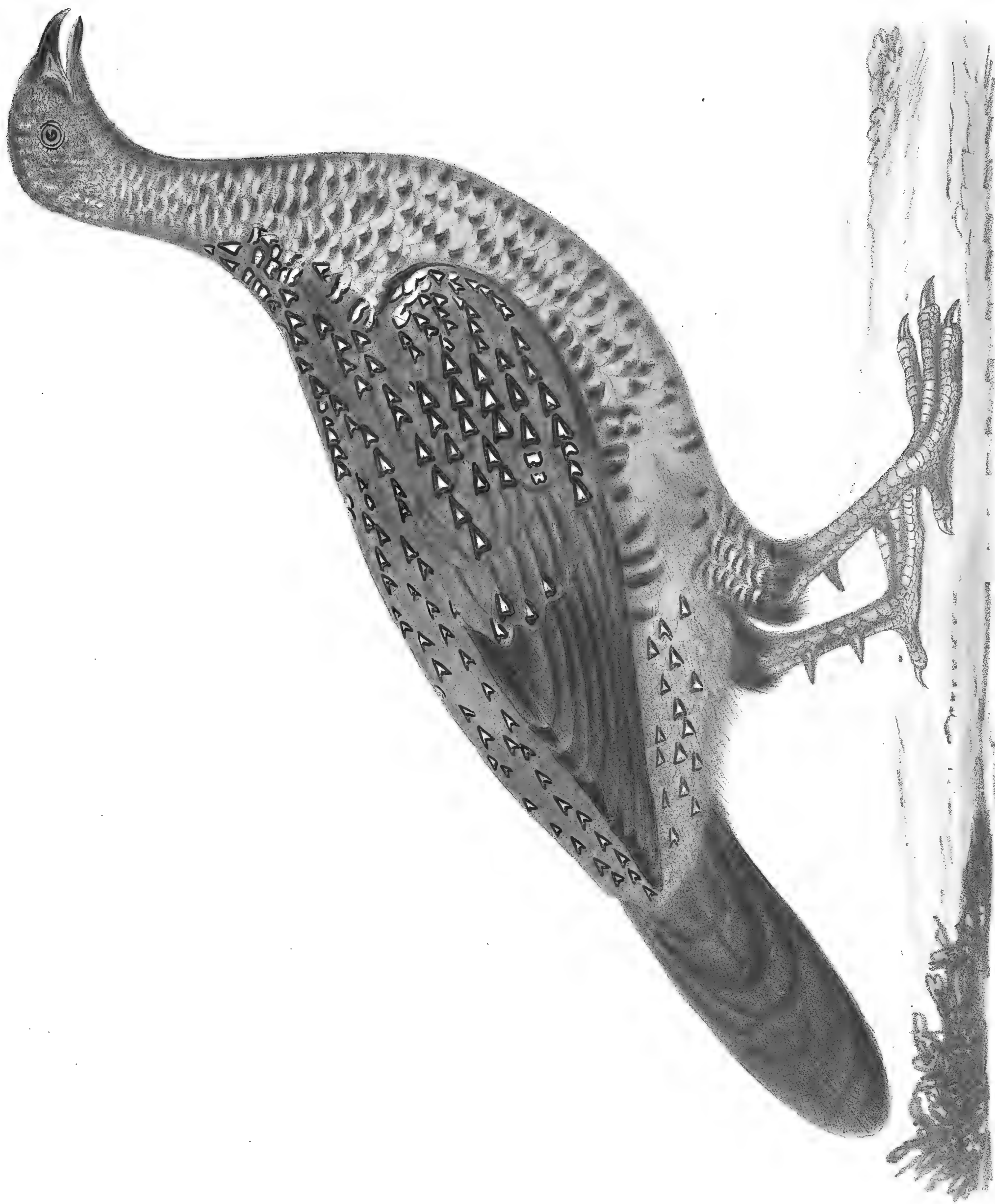
$\frac{3}{4}$ Nat. length



Drawn & Coloured by Waterhouse Hancock

Printed by F. & J. Mason & Co.

BENGAL HORNED PHEASANT. SATYRA LATAMI.



E. W. Hawkins lithog

CURRIA PARTRIDGE, - PERDIX HARDWICKII, Gray.

India. Nat. Size

Published 1829 by Parbury, Allen & Co. Leadenhall St.

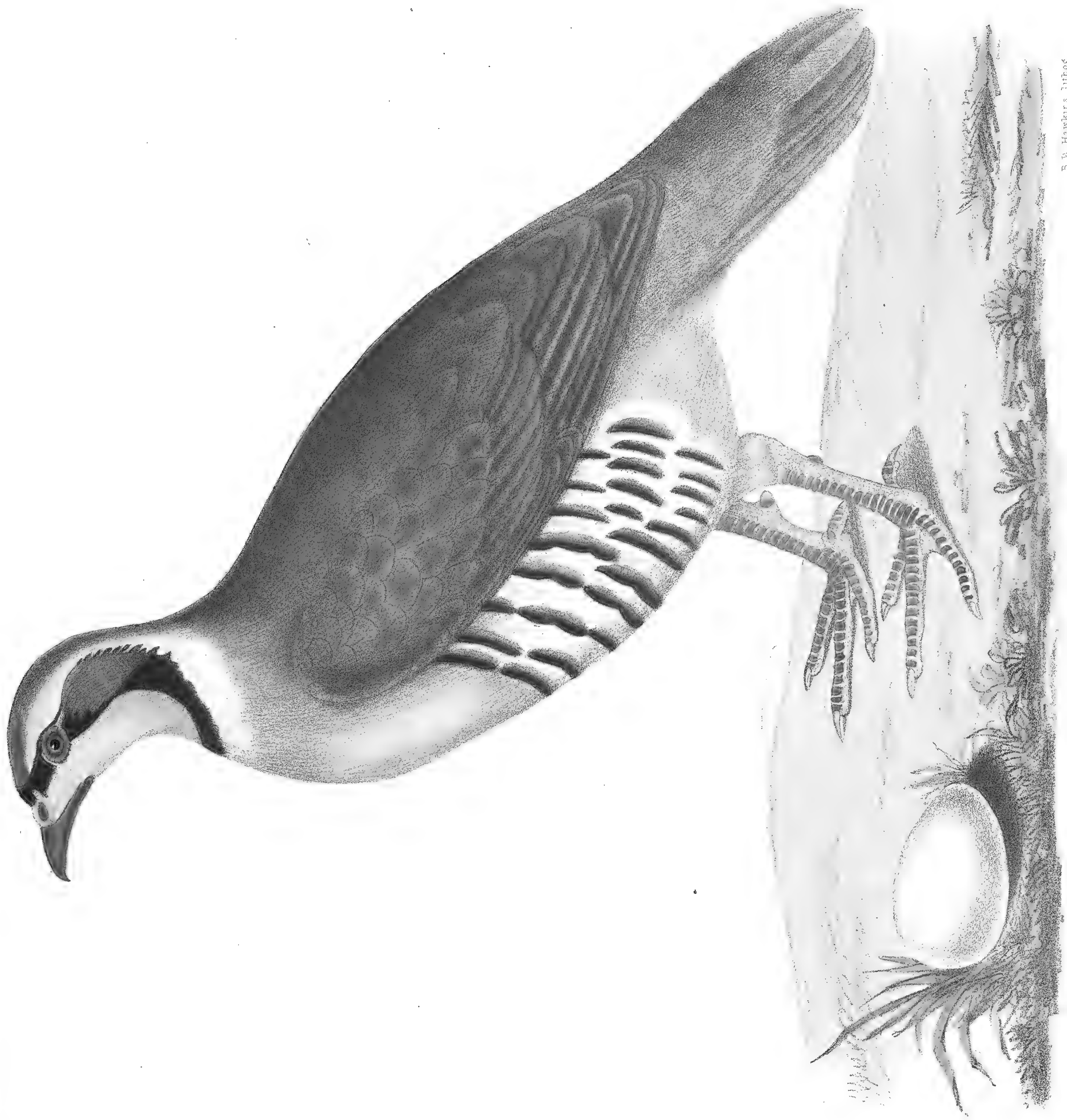
Printed by W. Day 27, Great St.



On Stone by Waterhouse Hawkins.

Printed by Eyermann & Co.

1. CONCENTRIC FRANCOLIN (female) *PERDIX CONCENTRICA* . 2. JAVANESE PEACOCKS (Head)

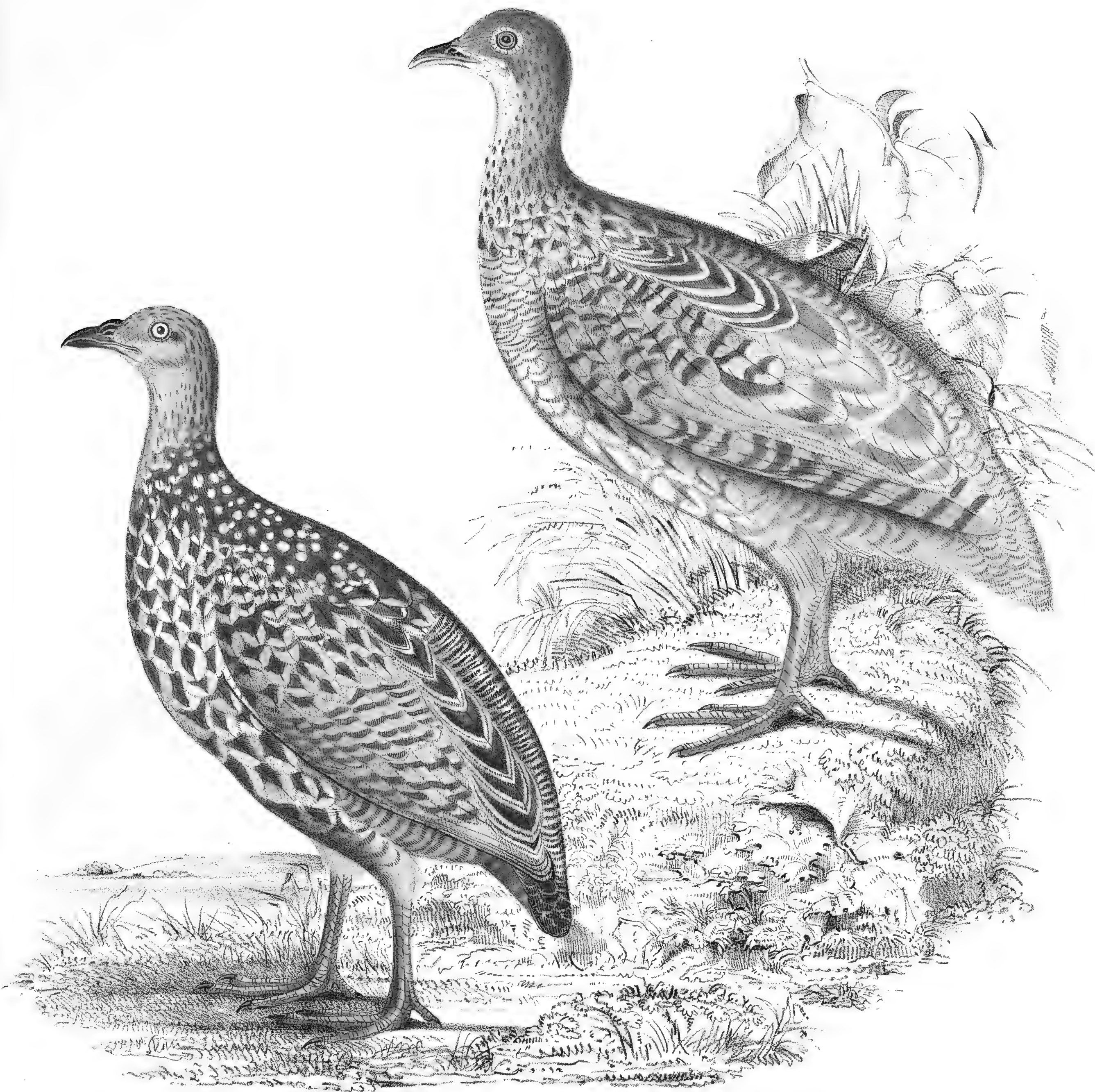


S. W. Hawkers Lithog.

GREATER FRIGATE.

Fredux Cladker Gray India Not size.

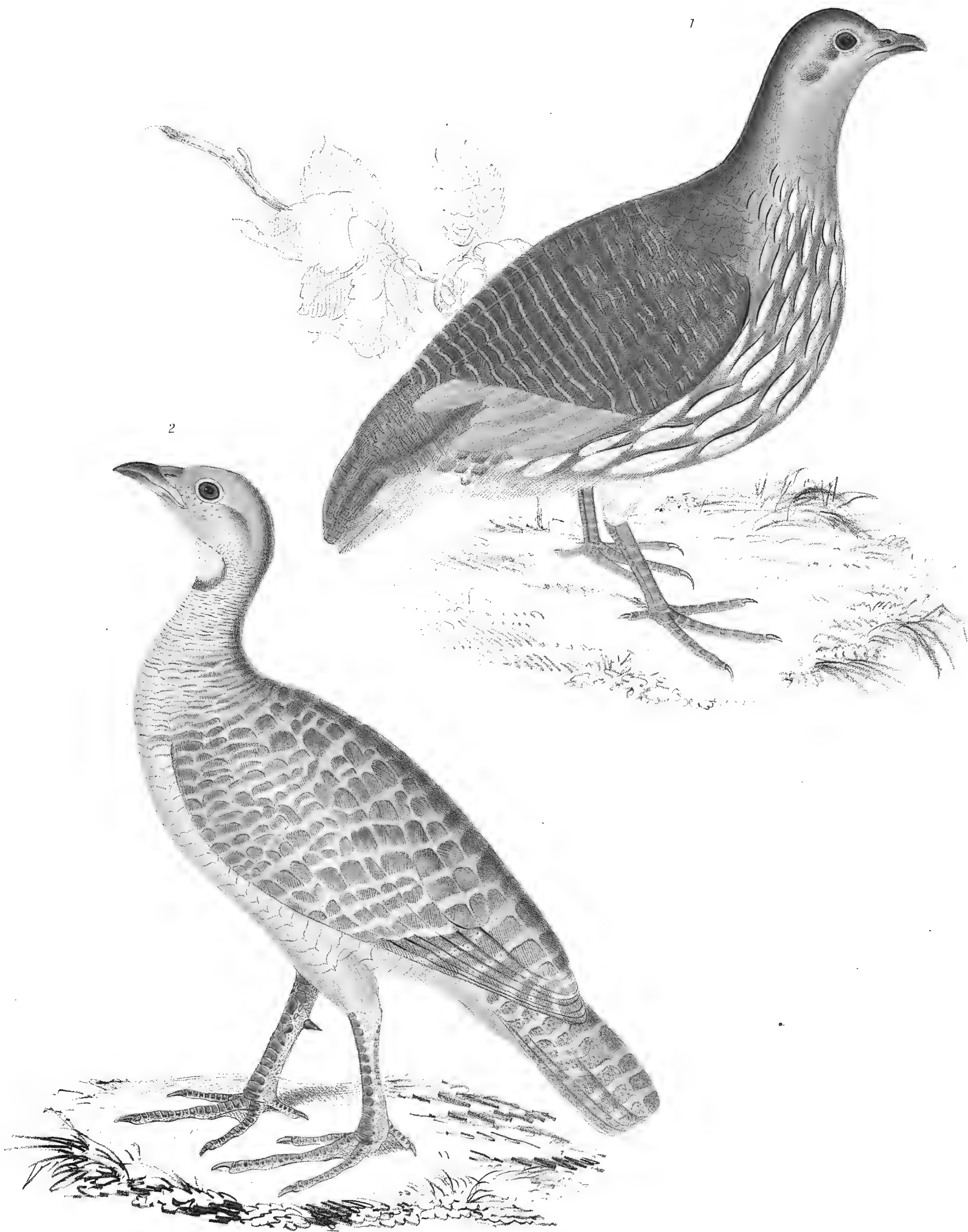
Printed by W. Day & Co. London.



On Stone by Waterhouse Hawkins.

Printed by Engelmann & Co.

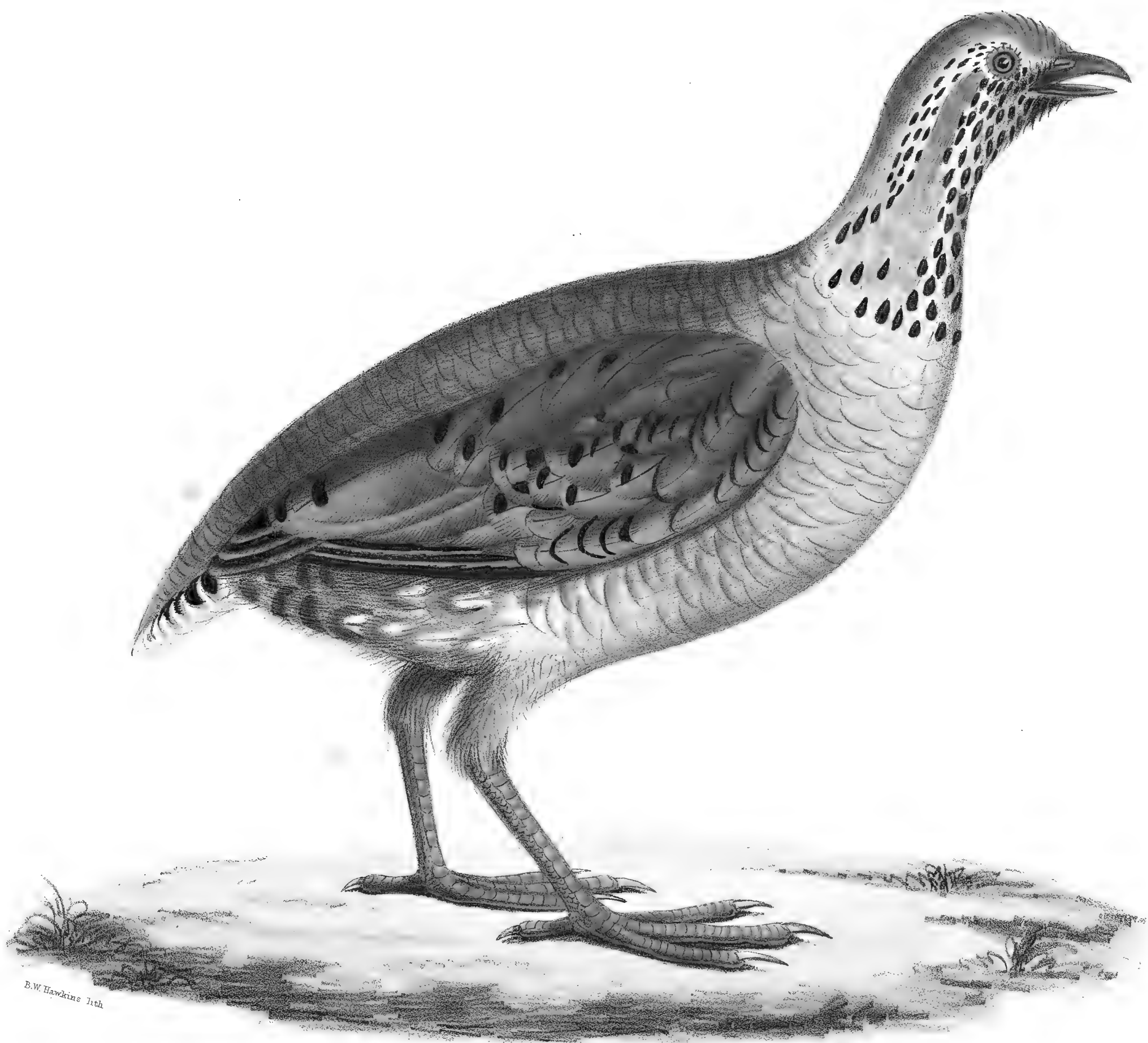
1. HEPBURNS FRANCOLIN PERDIX HEPBURNII 2. PERDIX HEPBURNII var. PALLIDA ODEYPORE.



On Stone by Waterhouse Hawkins.

Printed by Engelmann & Co.

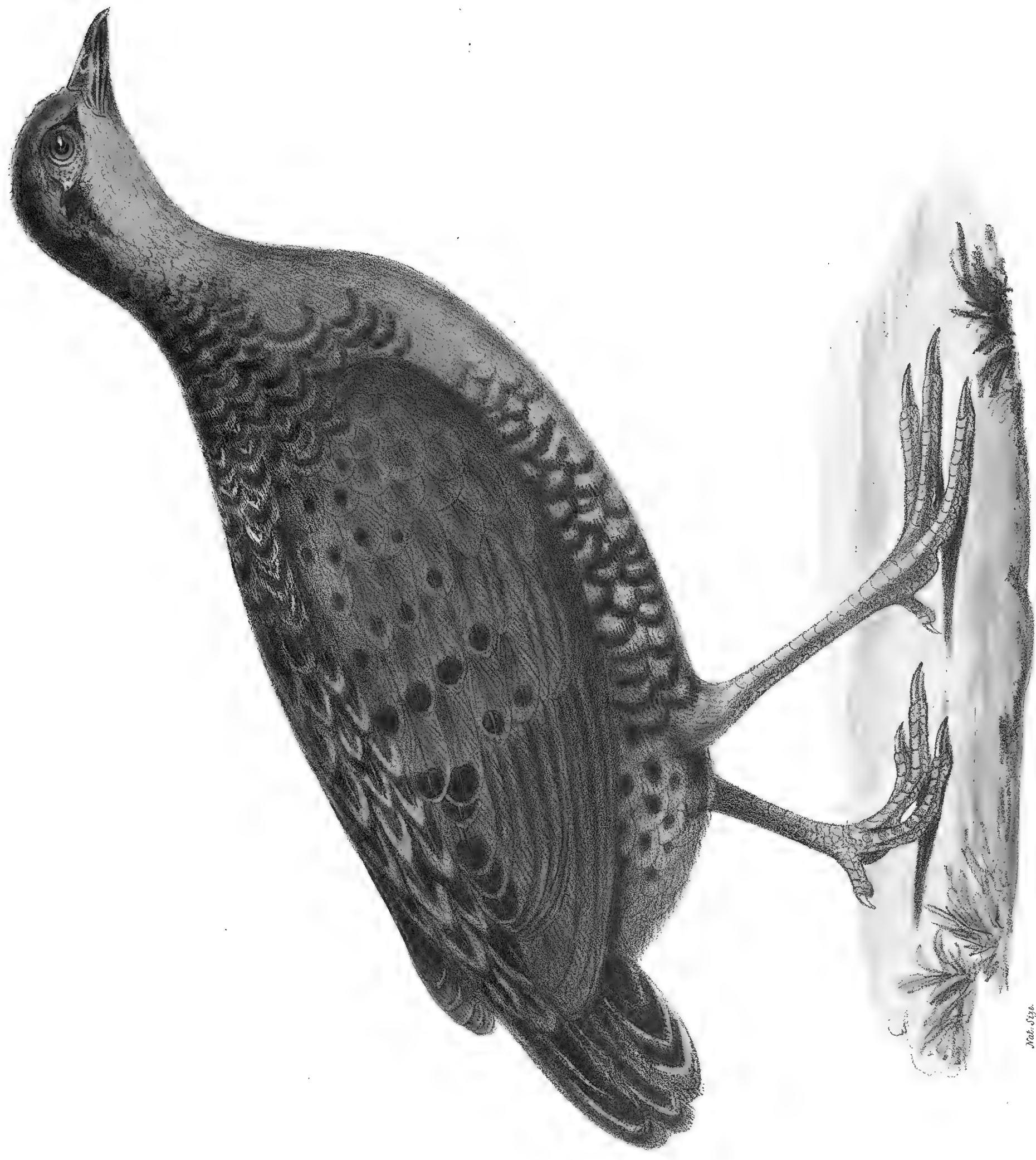
1. WOOD PARTRIDGE) PERDIX GULARIS (Temm) 2. ORIENTAL PARTRIDGE PERDIX ORIENTALIS (Lath Hist.)



D.W. Hawkins lith

— PHEASANT OLIVACEA or OLIVE PARTRIDGE Latham
India

*Published 1829 by Parbury Allen & Co. Ludenhall Street.
Printed by W.D. & J. Galt St.*



Nat. Size

B.W. Hawkins lithog

PERDIX OCULEA Temna -- EYED PARTRIDGE.
Bengal.

Printed by W.D. & H.K. Street

Red eye

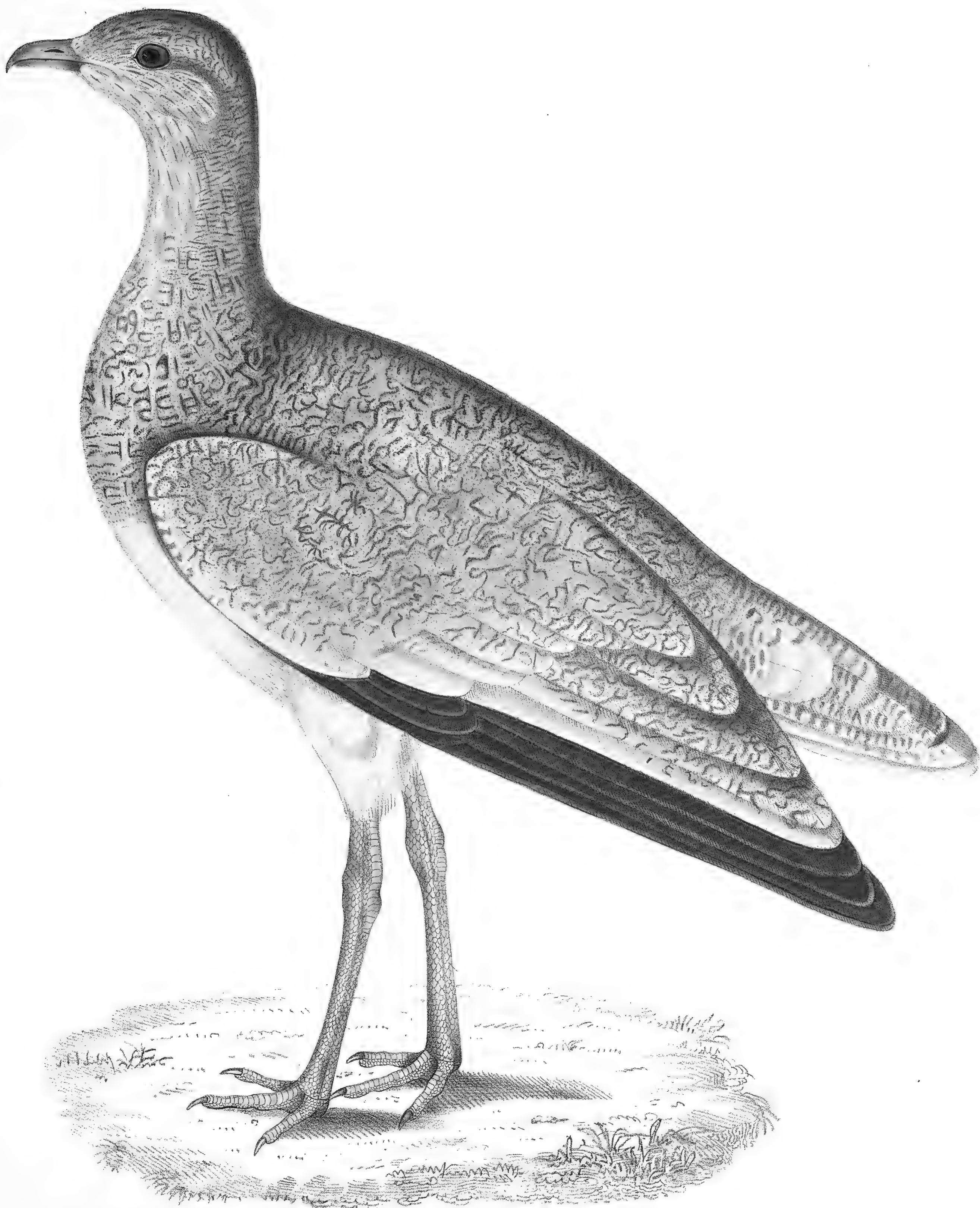


Drawn & Lith. by Waterhouse Hawkins.

Printed by Engelmann & Co.

EDWARDS'S BUSTARD. OTIS EDWARDSII.

$\frac{1}{2}$ Nat. length



On Stone by Waterhouse Hawkins.

Printed by Engelmann & Co.

MARbled BUSTARD OTIS MARMORATA.

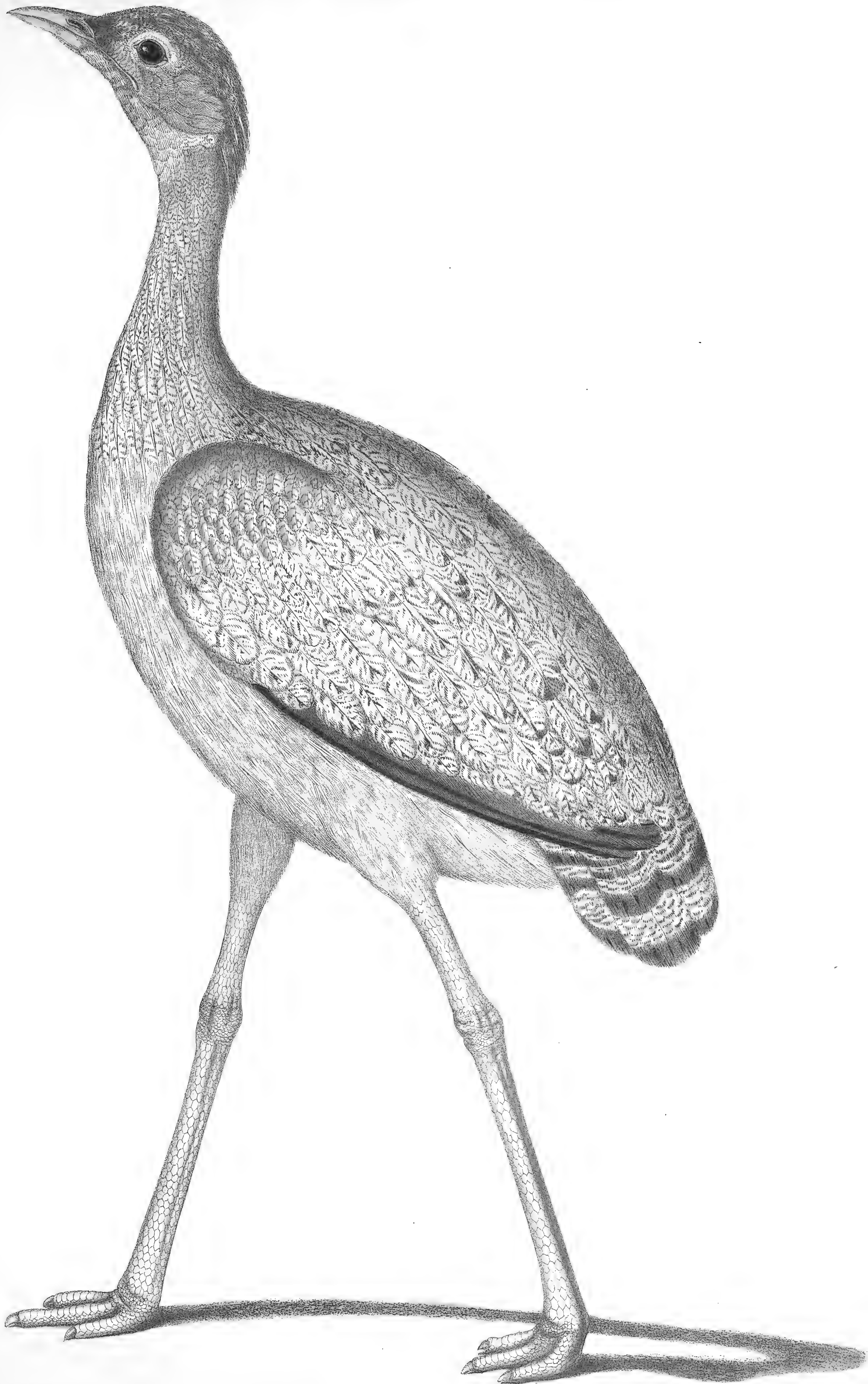


Drawn & lith by Waterhouse Hawkins

Printed by Engelmann & Co.

DELICIOUS BUSTARD male OTIS DELICIOSA.

$\frac{2}{3}$ Nat. length.



Illustrated by W. Woodhouse, Esq.

Printed by Longman & Co.

DELICIOUS BUSTARD. OTIS DELICIOSA.

$\frac{2}{3}$ Nat length.



SPUR WINGED PLOVER. Lath. CHARADRIUS VENTRALIS. Wagler.

Cawnpore
1..... Male 2... Female

Published 1839 by Parker, Allen & Co. Londonhall Street
Printed by W.D.G.



CICONIA (MYCTERIA) AUSTRALIS, Lath. TETAAR JABIRU, Lath.
PUTTEGHUR, INDIA.

Printed by Engelmann & Co

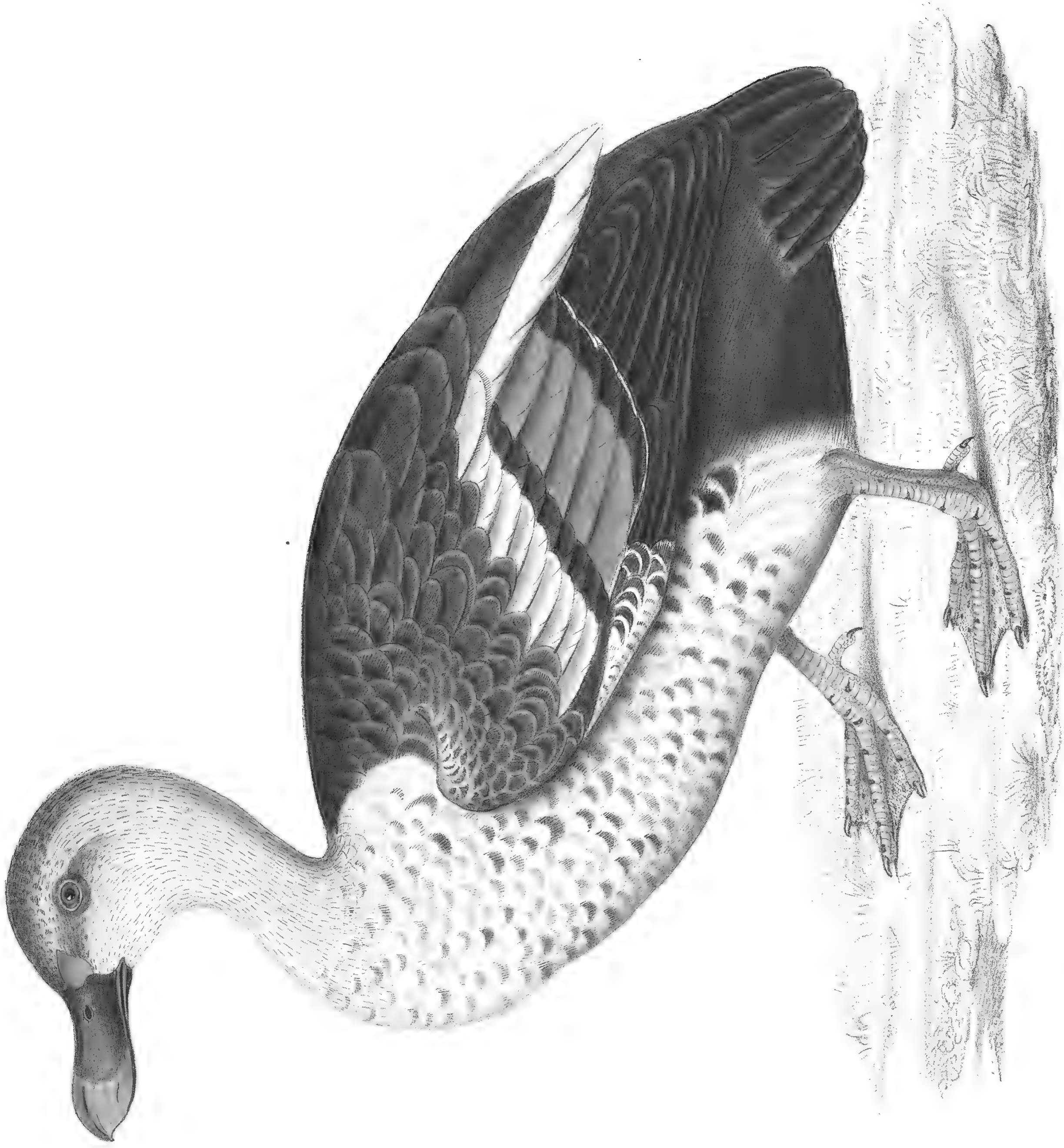
London. Published Sept 1829, by Parbury, Allen & Co. Leadenhall St.



Drawn & Etched by Waterhouse Harrison

Printed by Engelmann & Co

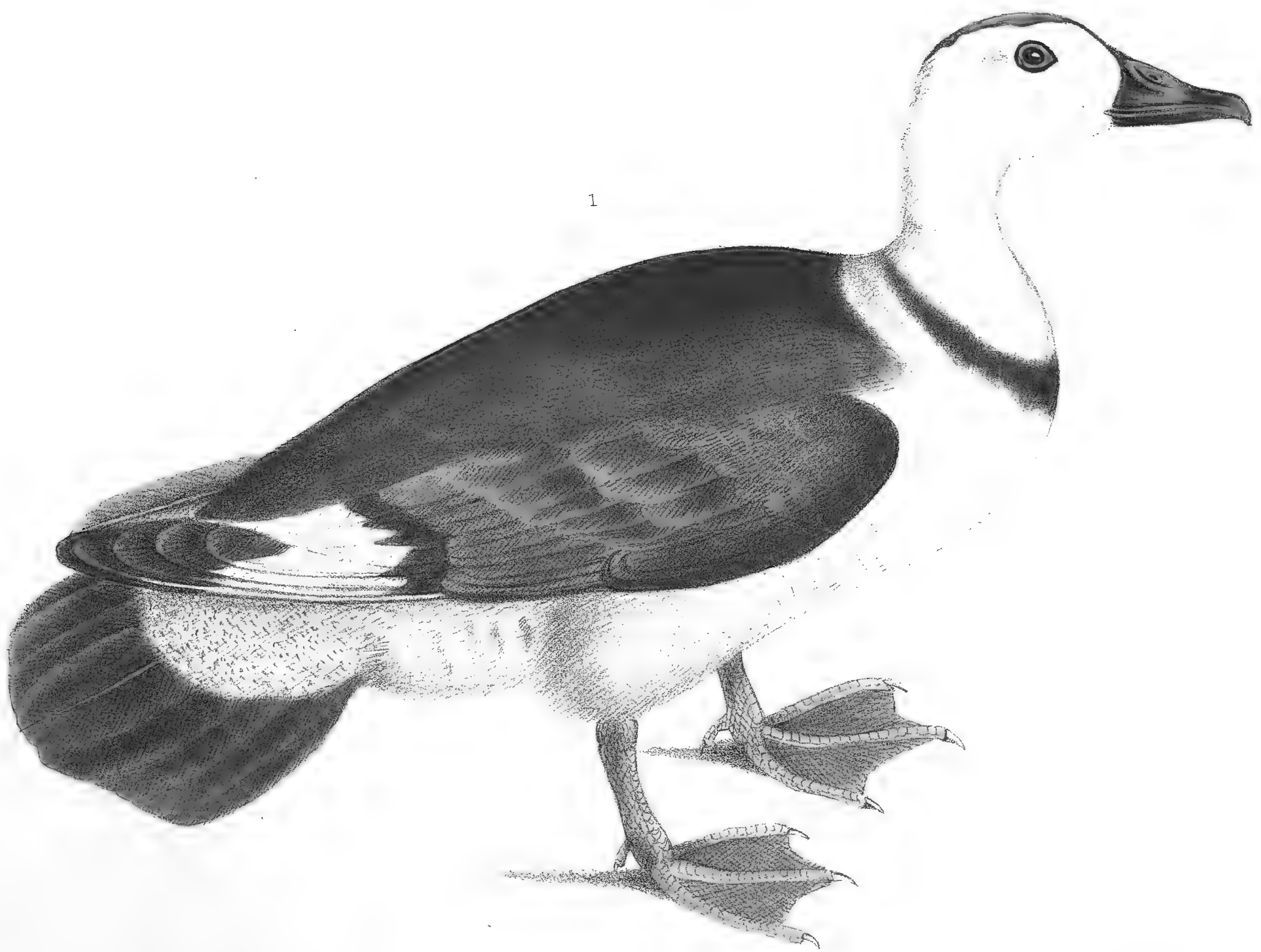
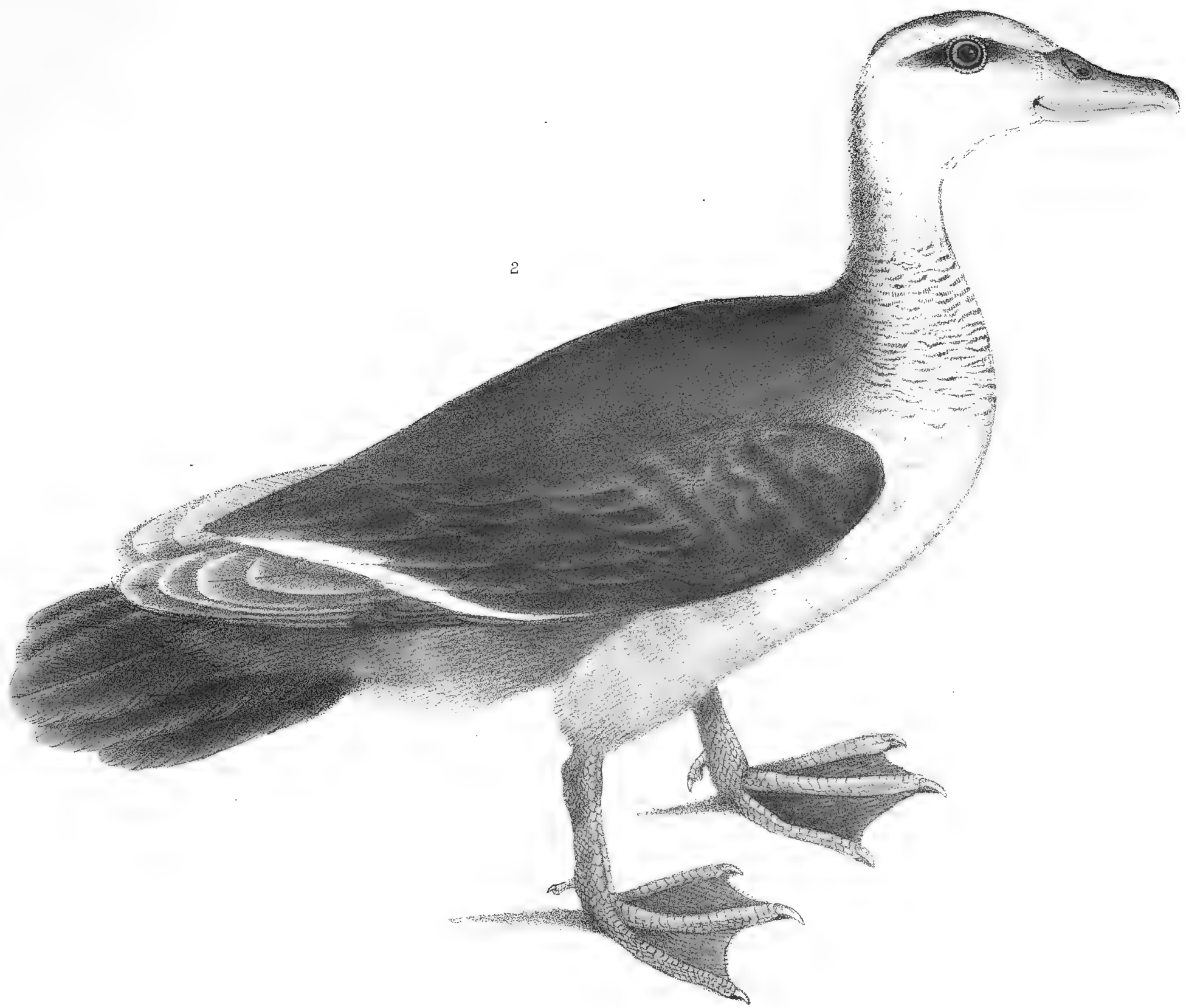
INDIAN WHITE HERON. ARDEA ORIENTALIS.



Drawn & Engraved by W. Woodhouse, from a Hawk.

Printed by Engelmann & Co.

MOTTLED DUCK. *Anas platyrhynchos* Lath.



B. Waterhouse Hawkins. lith.

Printed by W. Day

GIRRA TEAL. Lath. ANAS GIRRA. n.

1. Male

2. Female.

Published 1829 by Turbary Allen & Co. Leadenhall Street

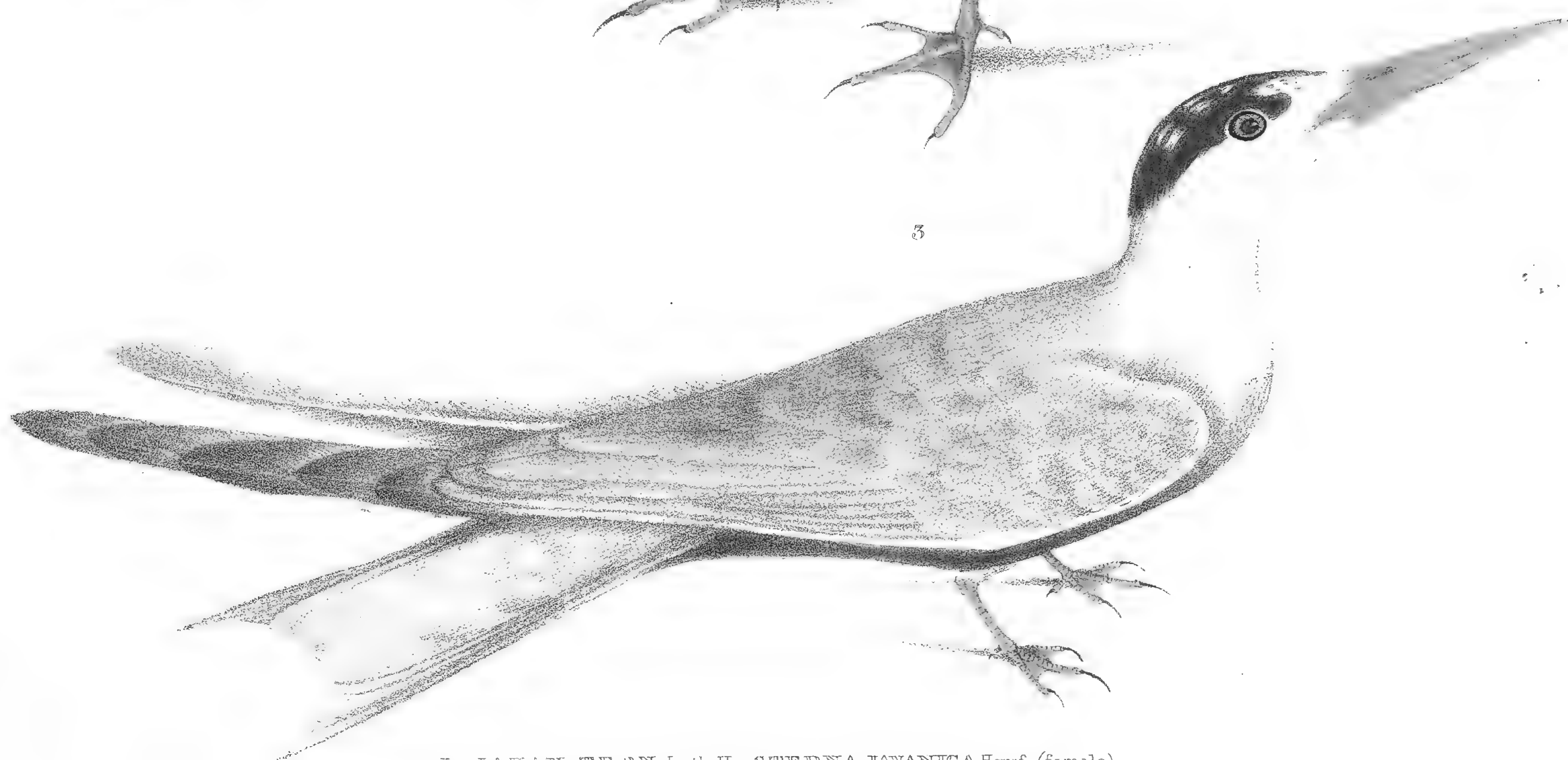
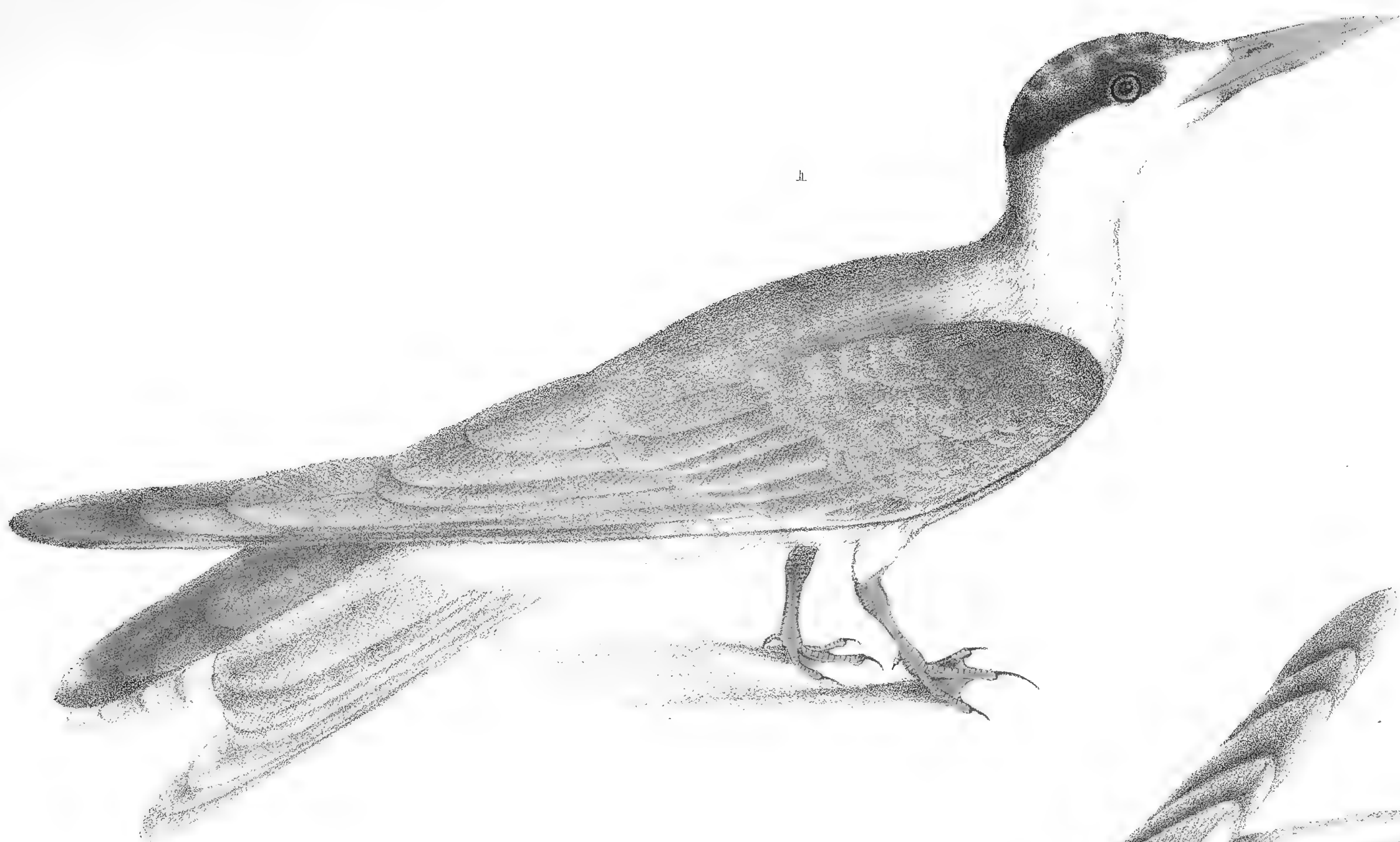


B. W. Hawkins litho.

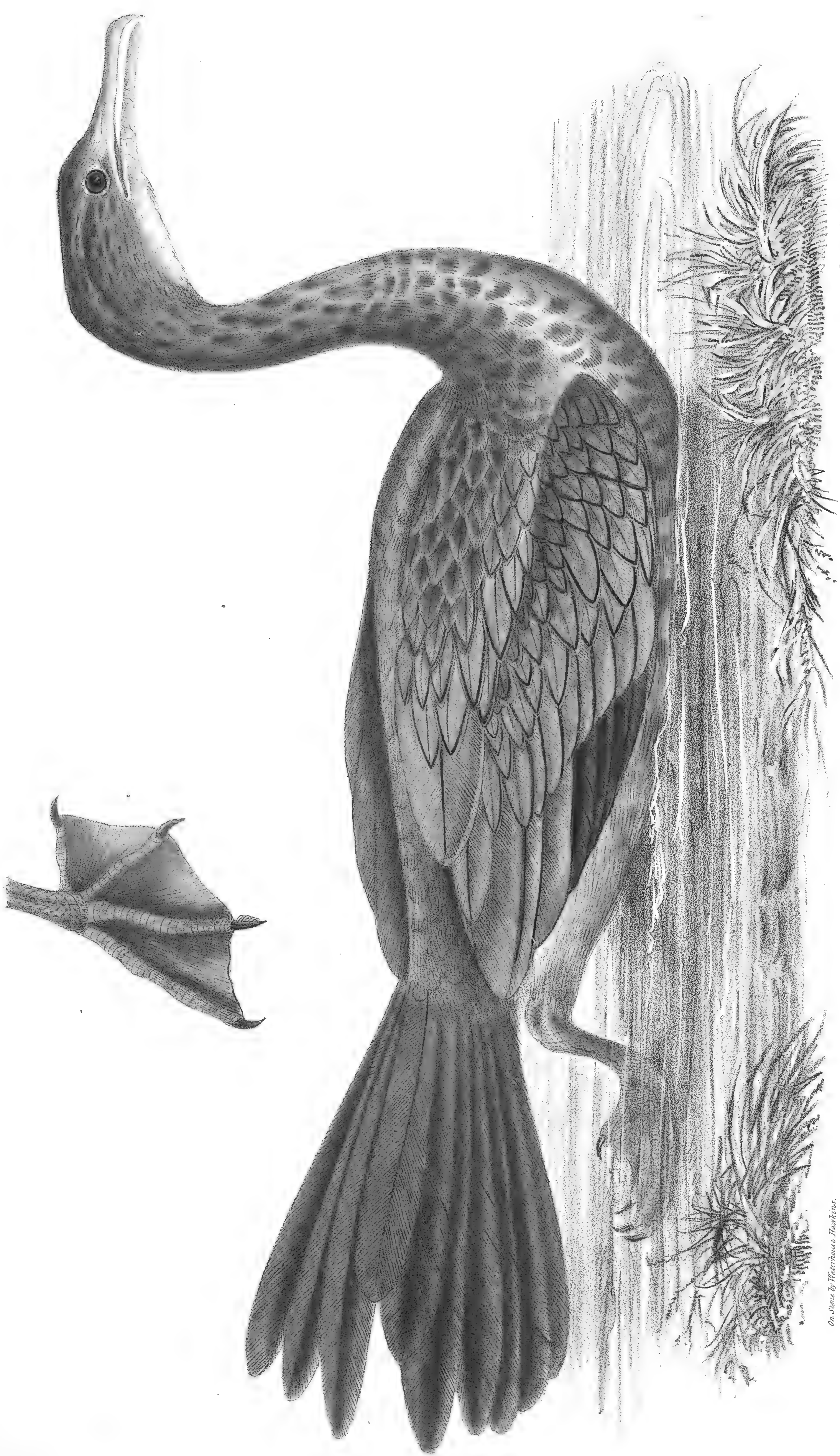
1. WAVED TERN, Lath. H. — STERNA BREVIROSTRIS. Nob.

2. BONIN PETREL, Lath. H. — STERNA AURANTIA. Nob.

London: 1843. Printed by W. & A. G. S. S. S. S. S.



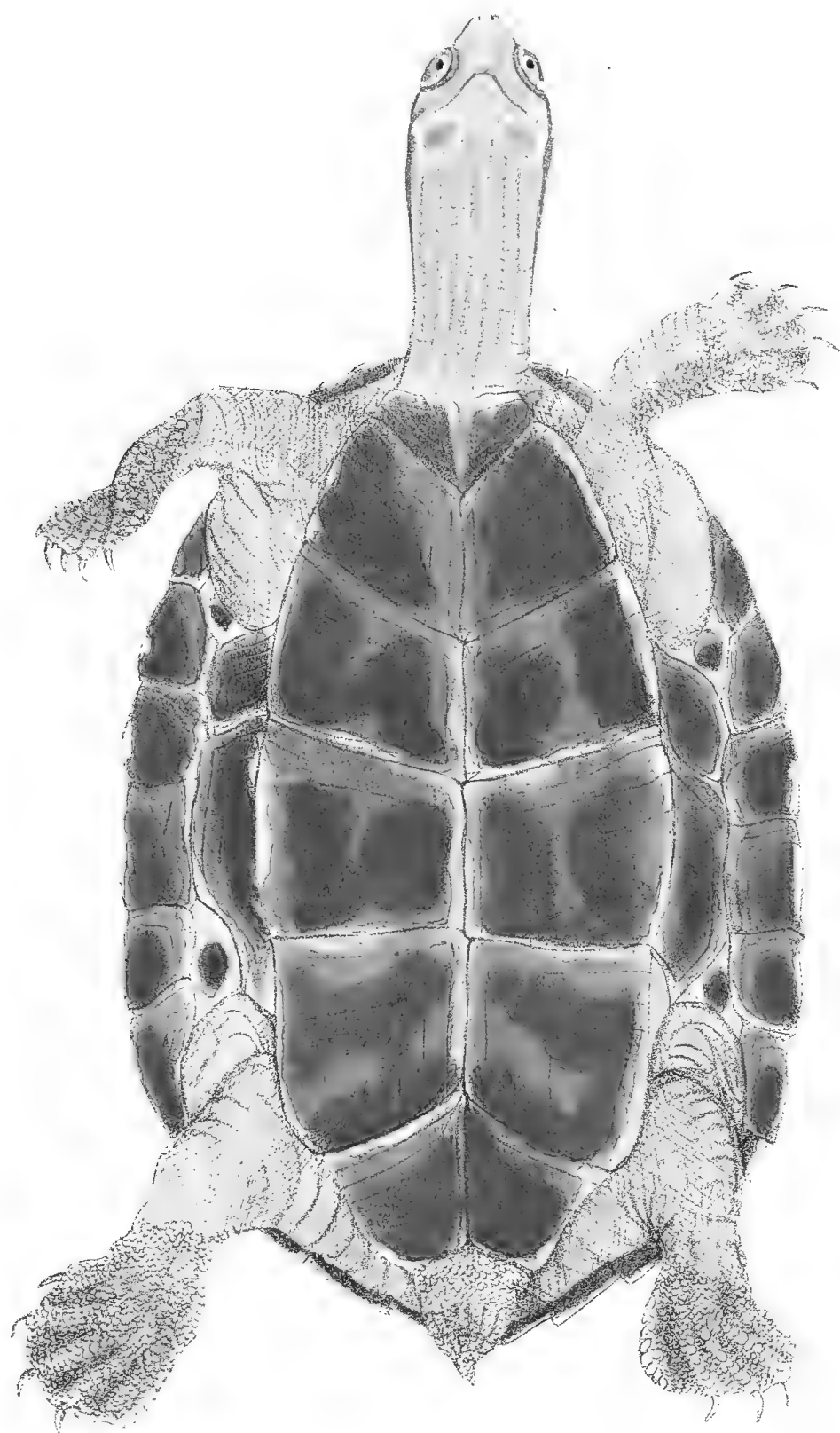
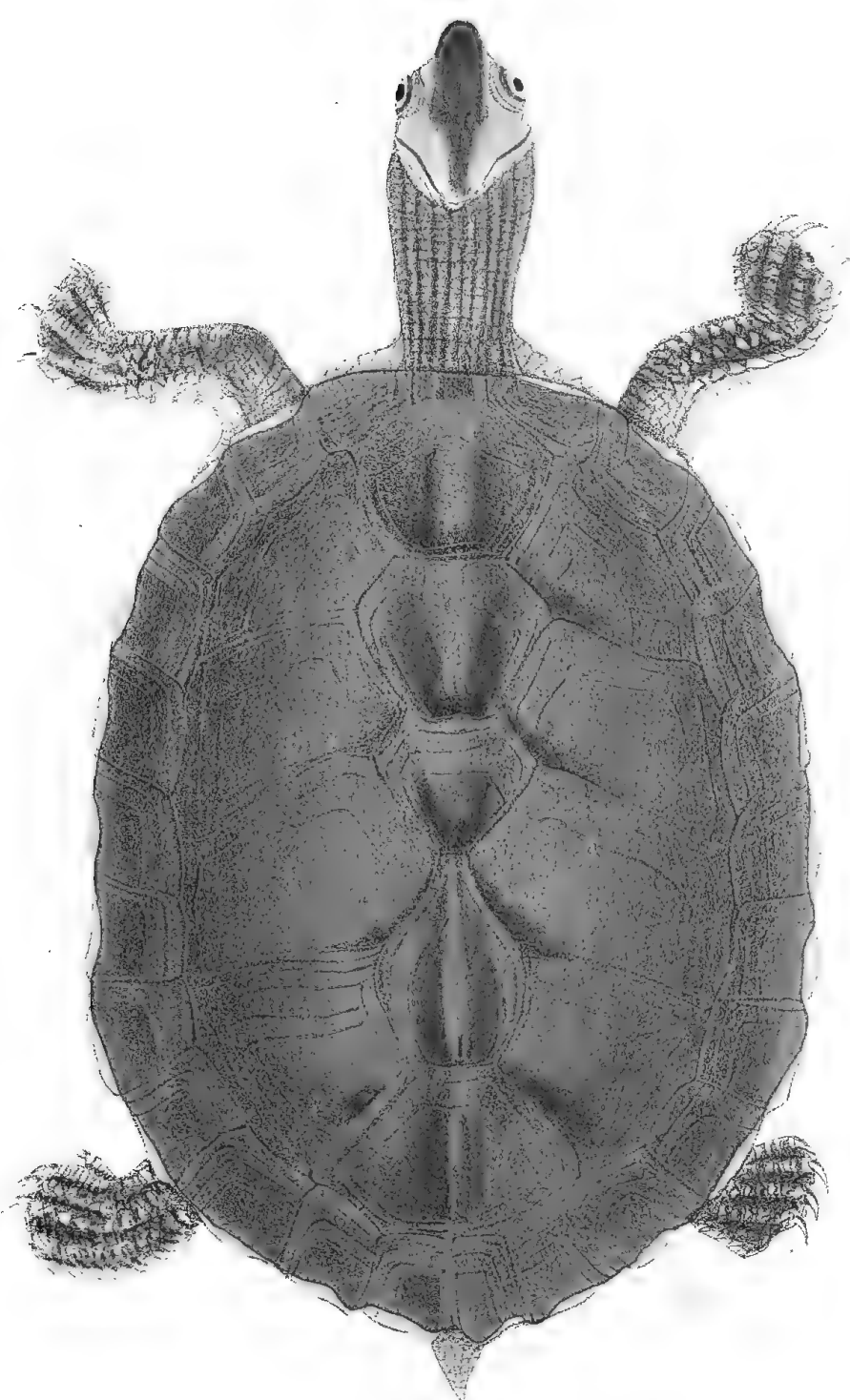
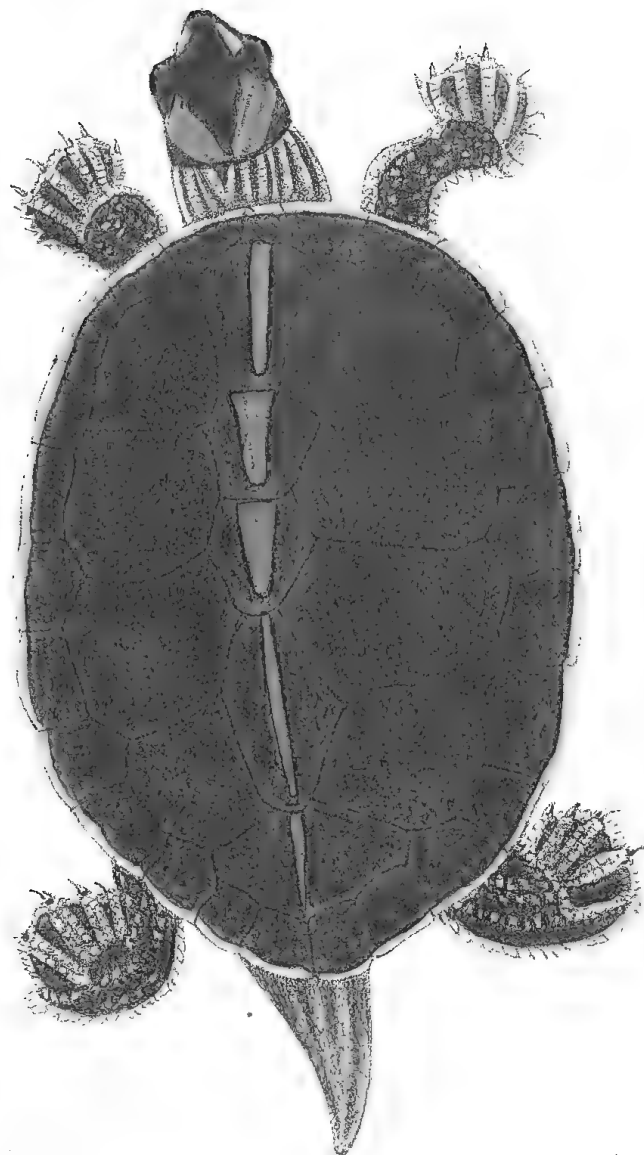
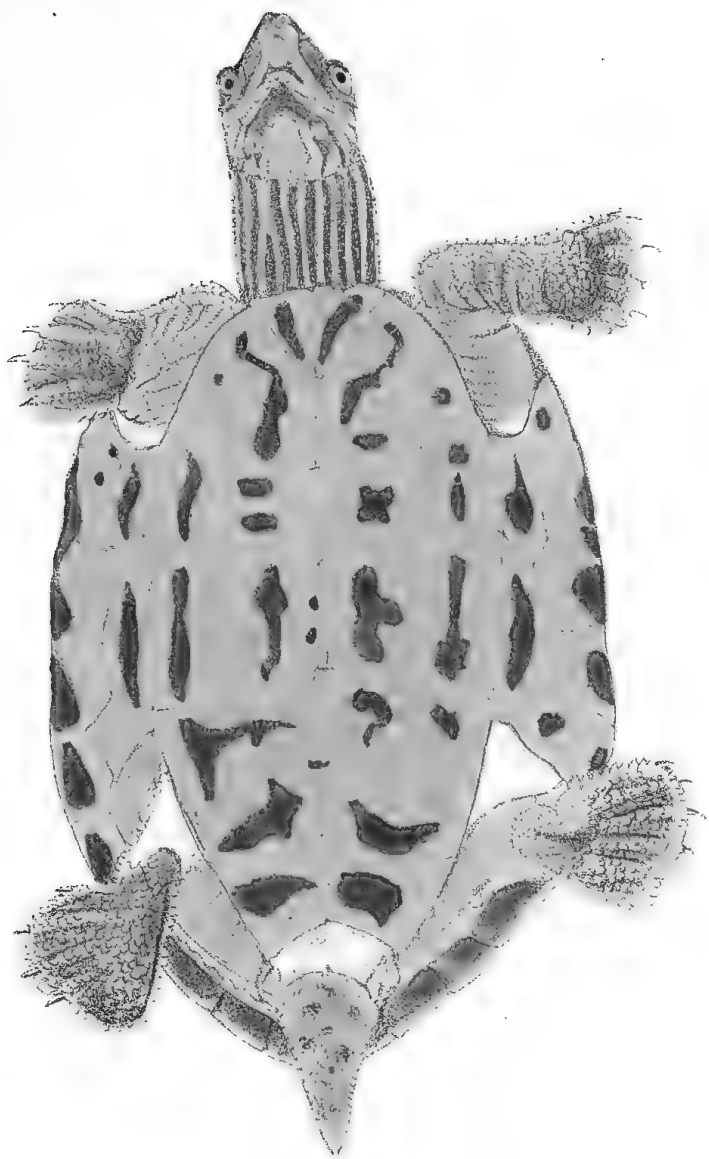
1. JAVAN TERN. Lath. H. STERNA JAVANICA Horsf. (female)
 2. ALLIED TERN. STERNA SIMILIS. Nob.
 3. BROWN BELLED TERN. Lath. H. STERNA ACUTICAUDA nob. male



On Stone by Waterhouse Hawkins.

Printed by Engelmann & Co.

CRABO JAVANNICA (Horsf) JAVAN CORMORANT.



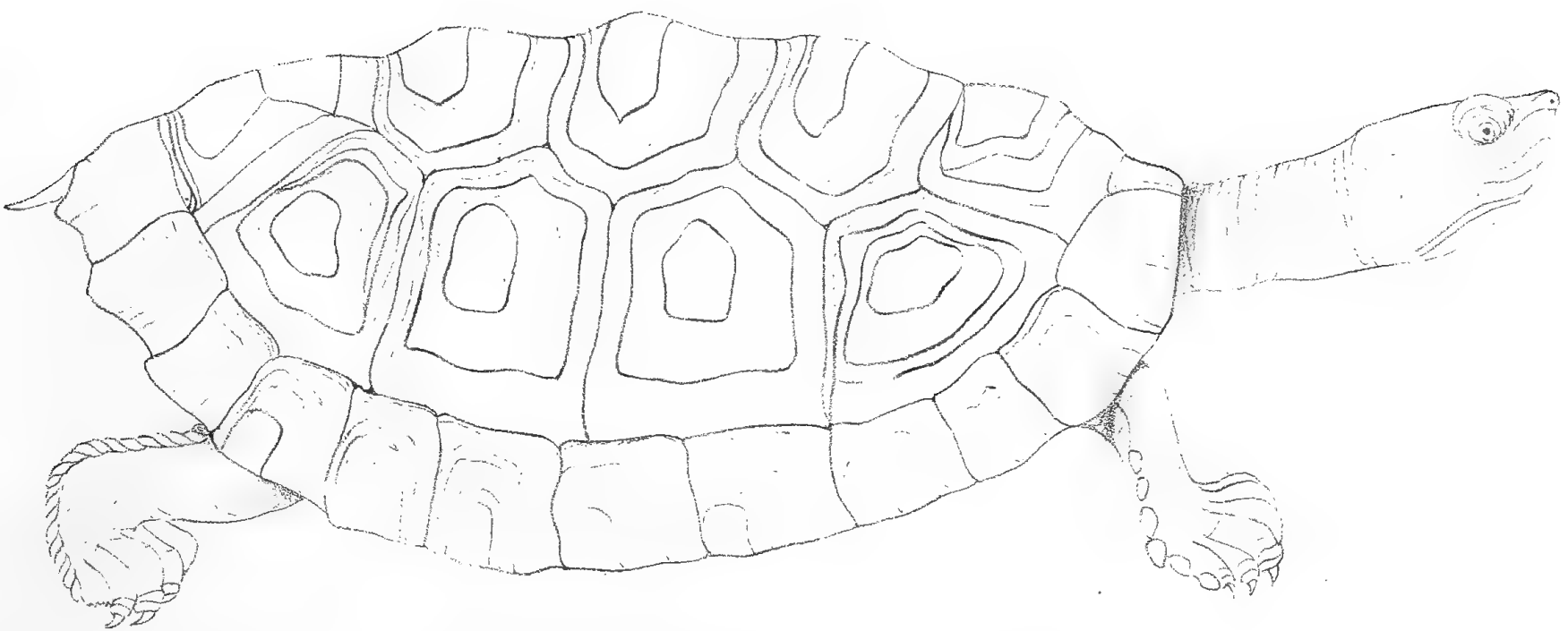
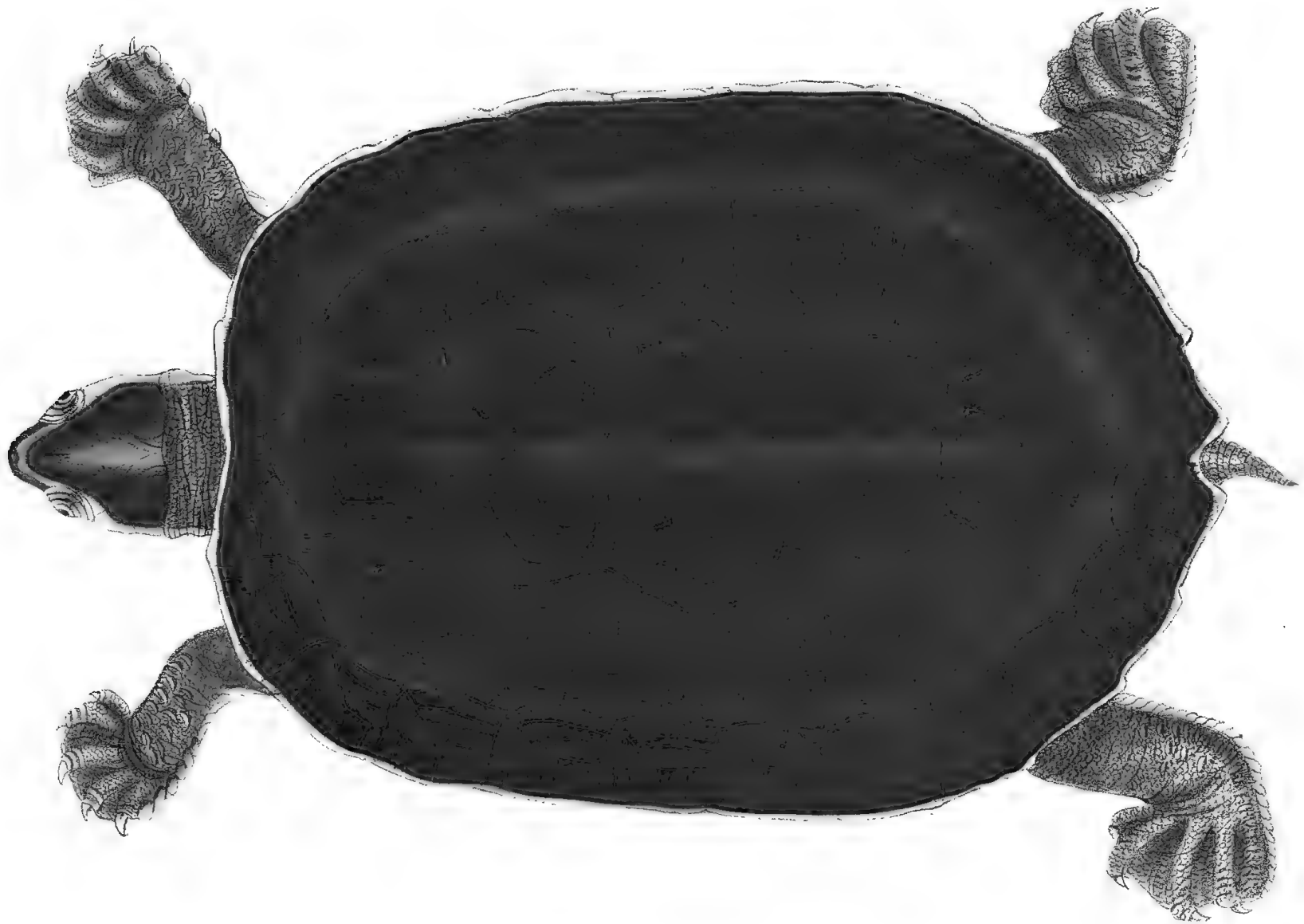
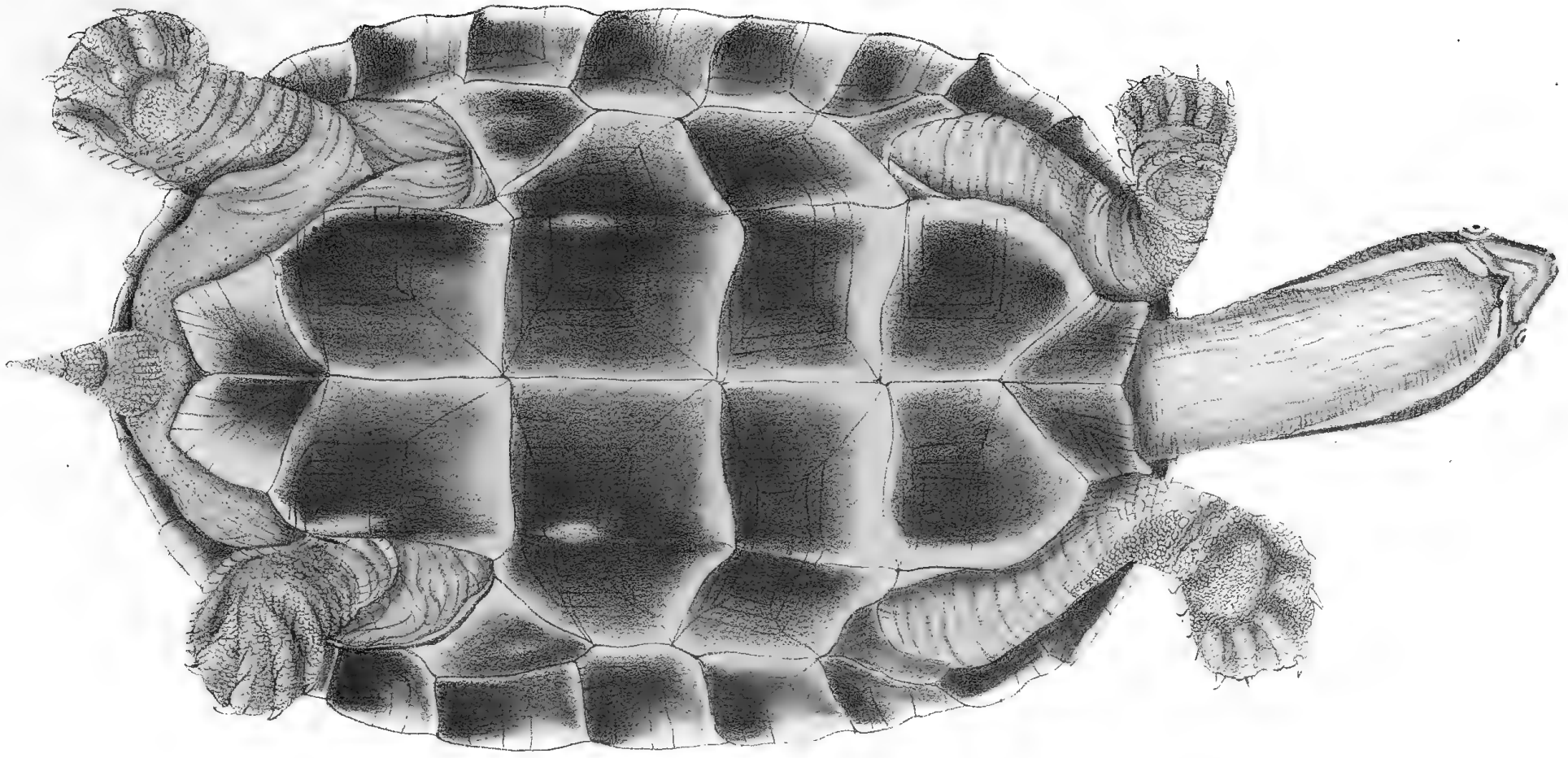
B.W.Hawkins, lith.

LEAVED TERRAPIN. *EMYS TECTUM*. Bell Mjs.

From Dr Buchanan Hamiltons Drawings.

India.

Published by Parbury Allen & Co. Leadenhall Street.
Printed by W. Day.

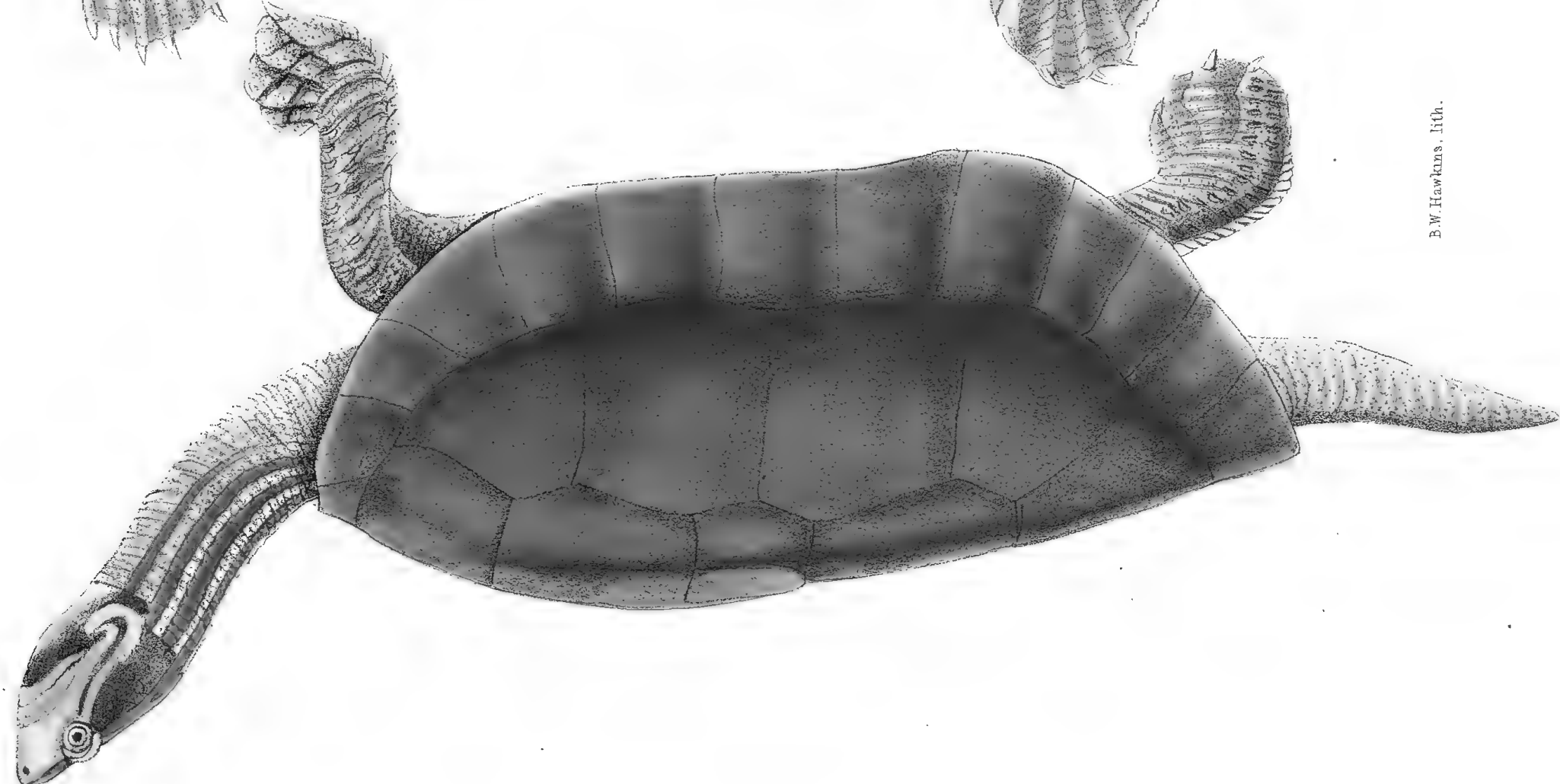
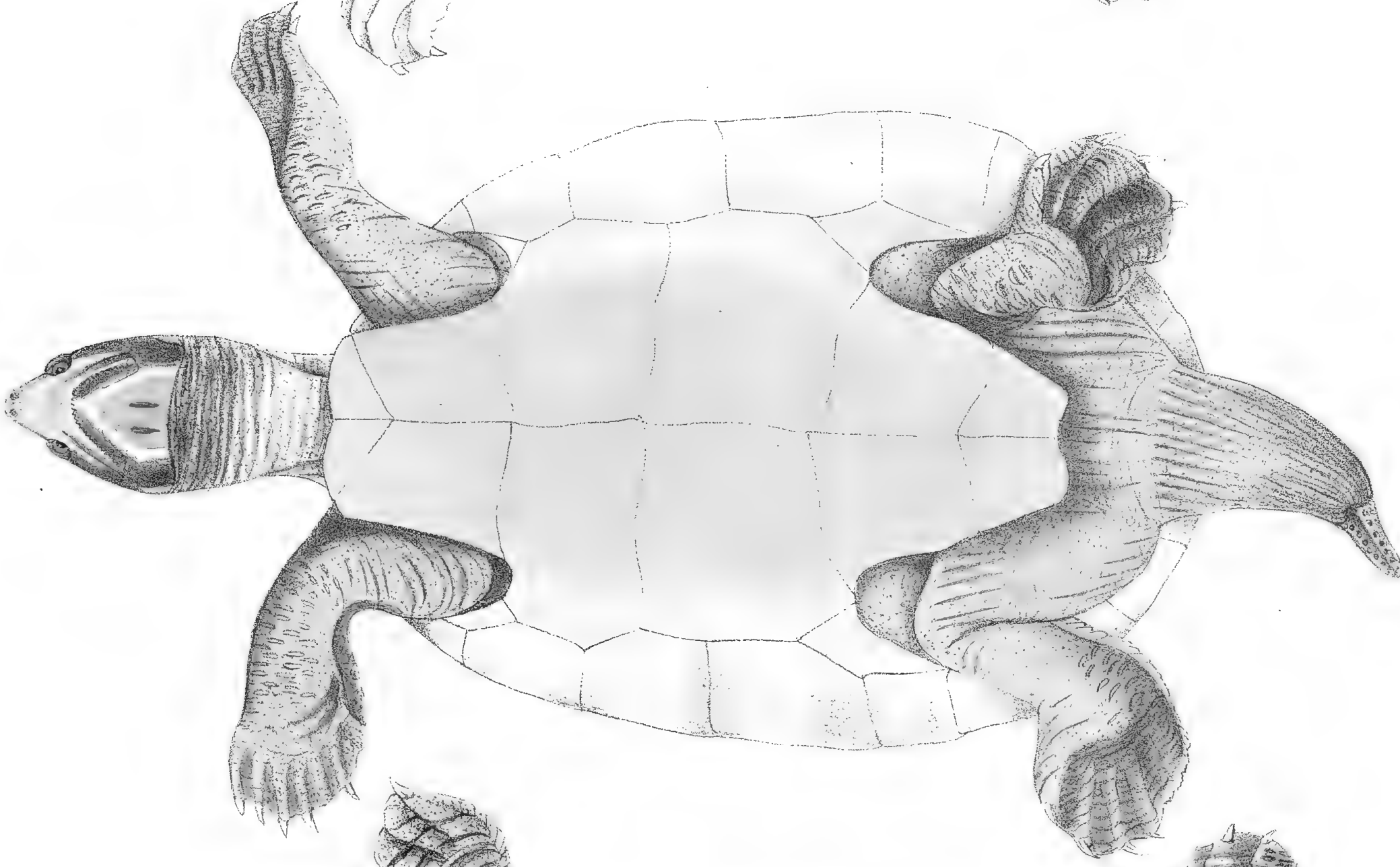
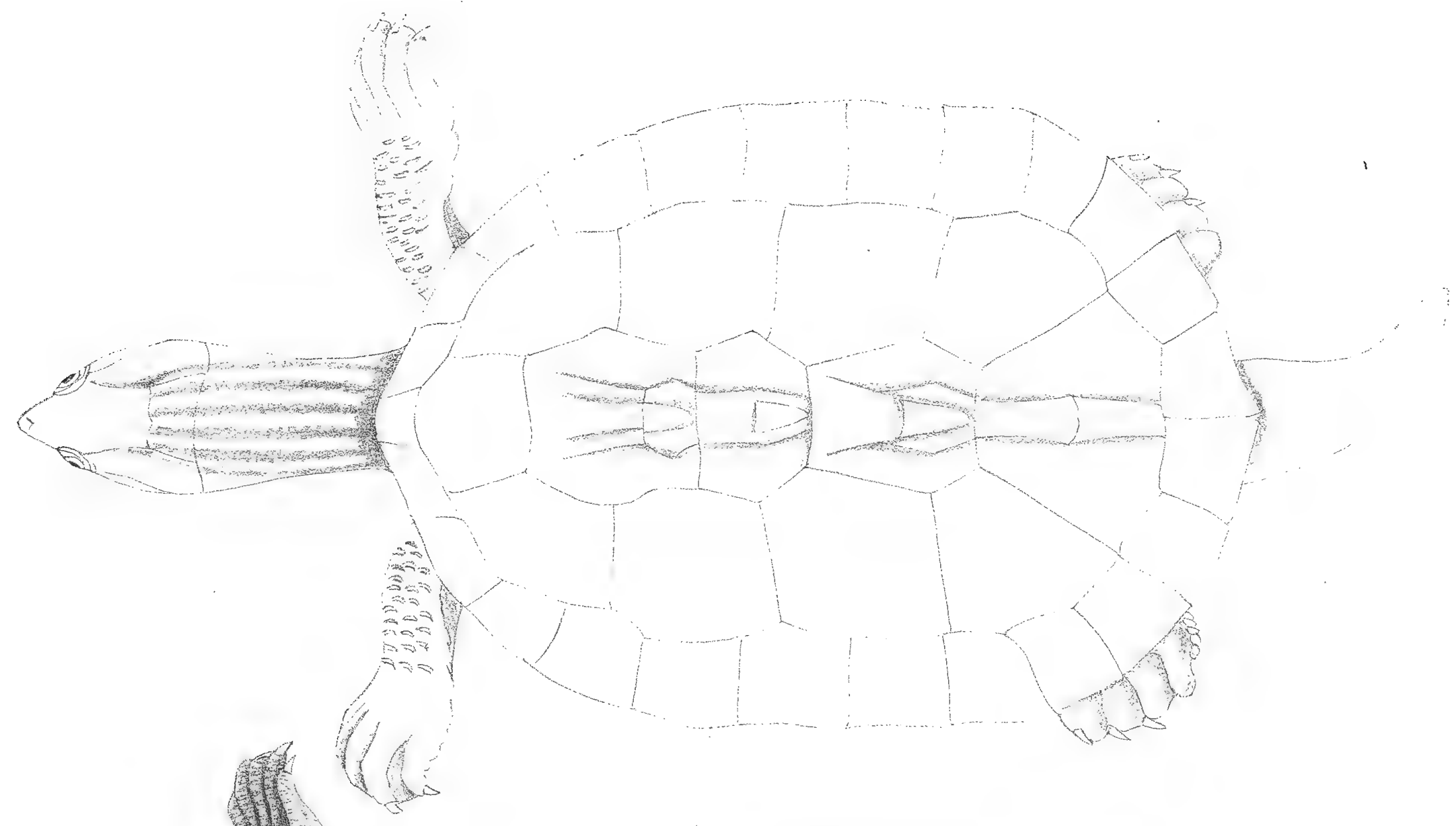


THUJ. TERRAPIN. n. E.MYS THUJ. n.

From D^r Buchanan Hamilton's Drawing

Published by Parbury, Allen & Co. Leadenhall St. E.

Printed by W. Day



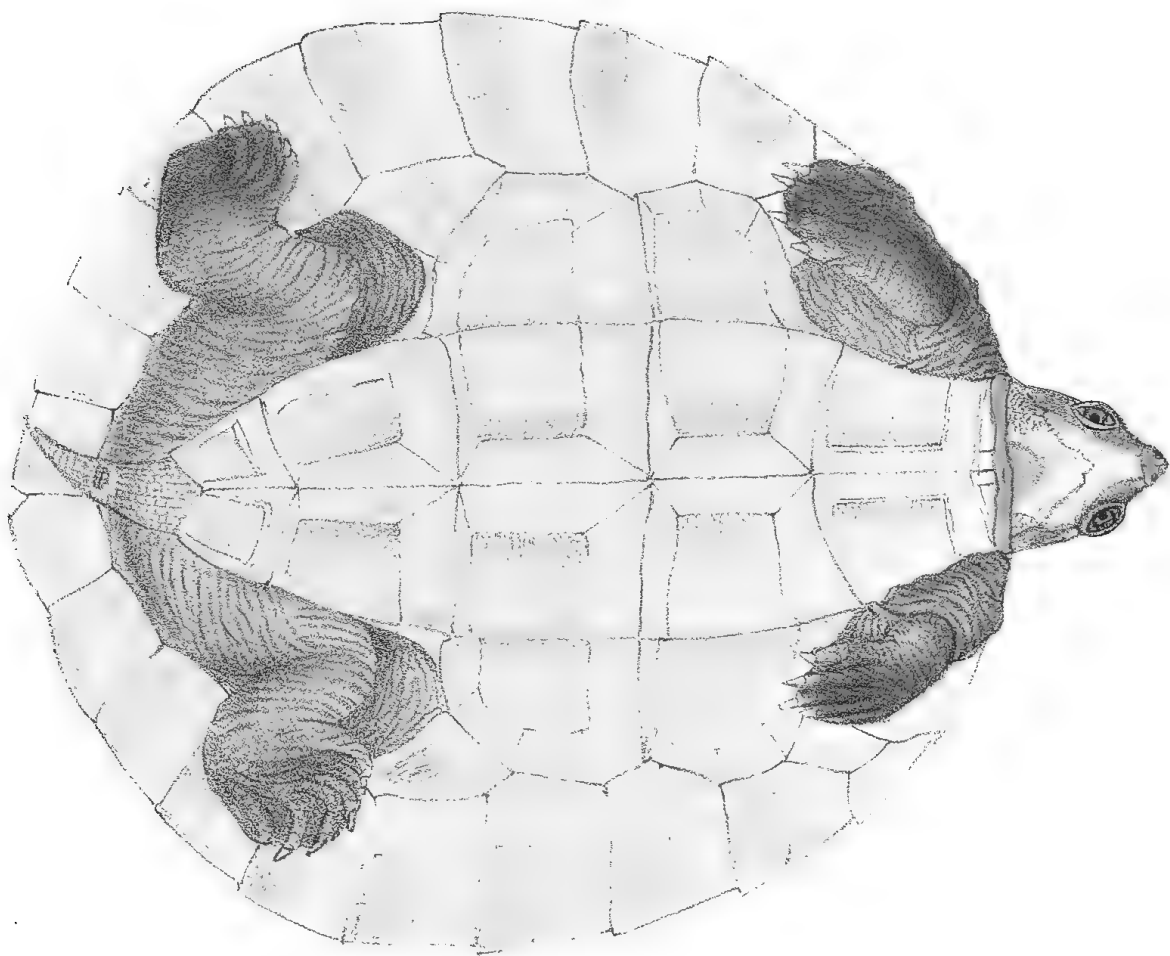
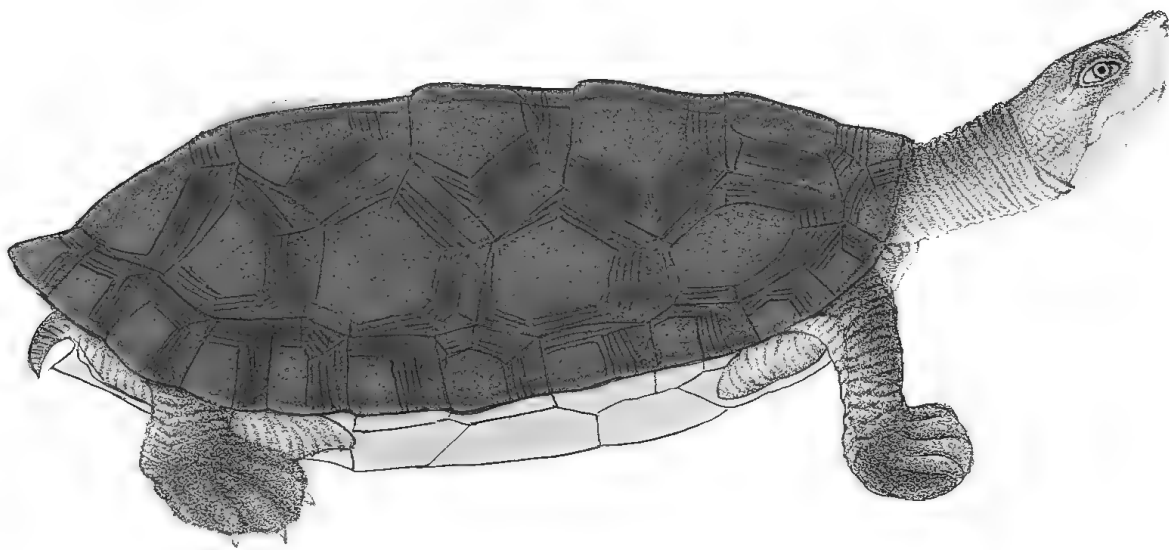
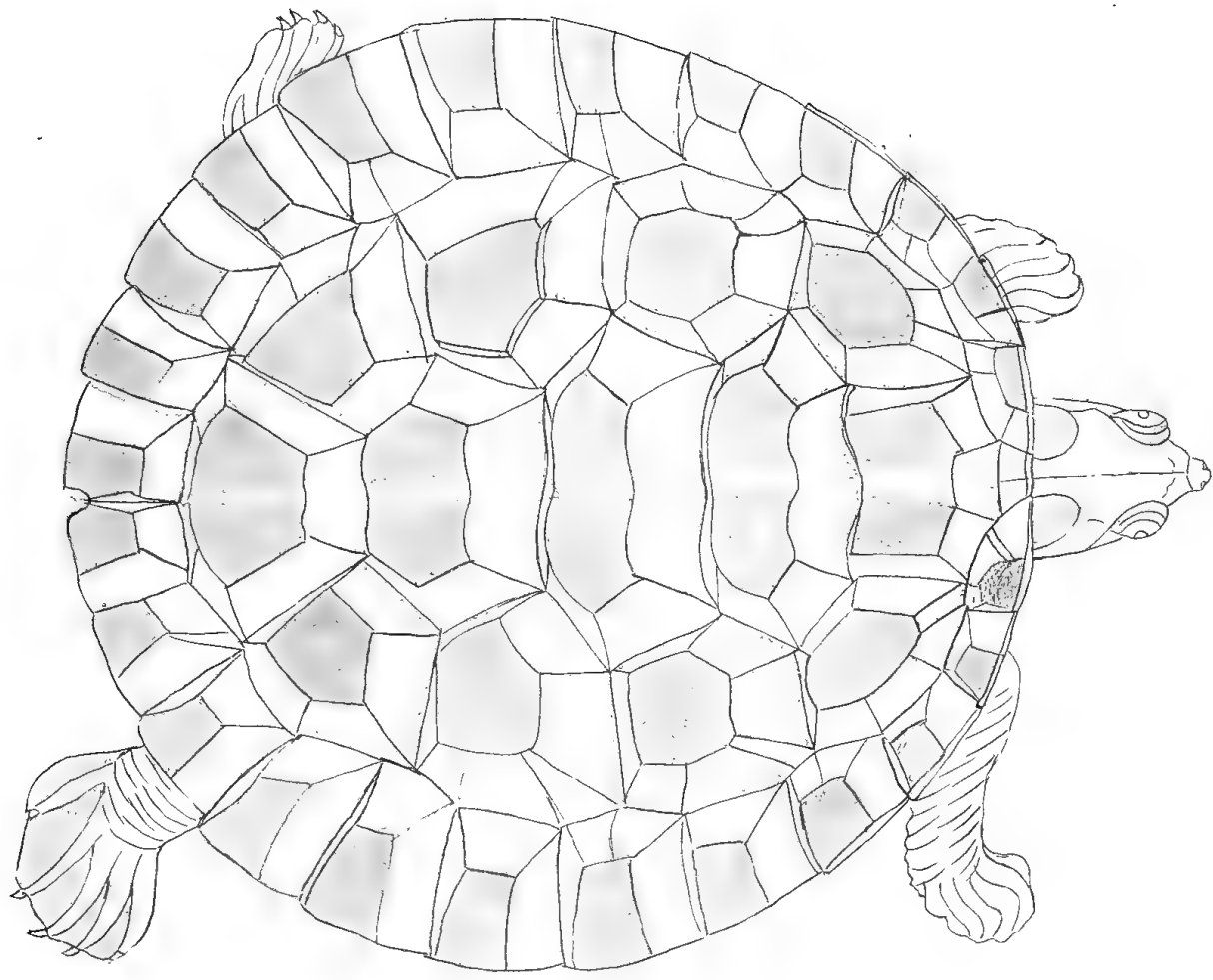
B.W. Hawkins, lith.

KACHUGA TERRAPIN. EMYS KACHUGA.

From Dr. Buchanan Hamiltons. Drawings.

India.

Published by Baillière Allen & Co. Londonball Street
Printed by W. Day.

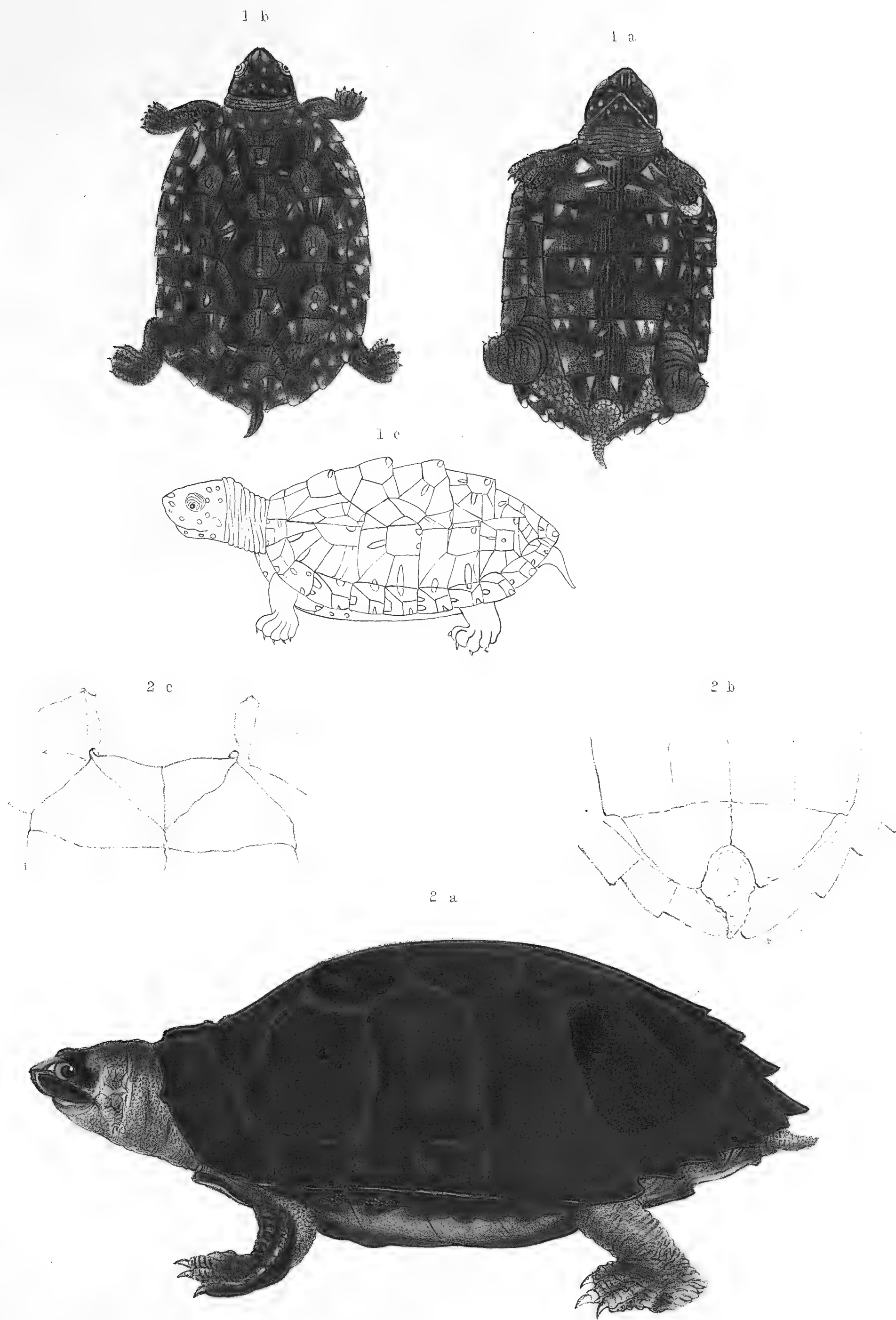


Monley del

BASKA TERRAPIN. n. EMYS BASKA. n.

From Dr Buchanan Hamilton's Drawing.

Published by Portbury Allen & Co. Leadenhall St.
Printed by W. Day.



1.....SPOTTED TERRAPIN. EMYS GUTTATA n.

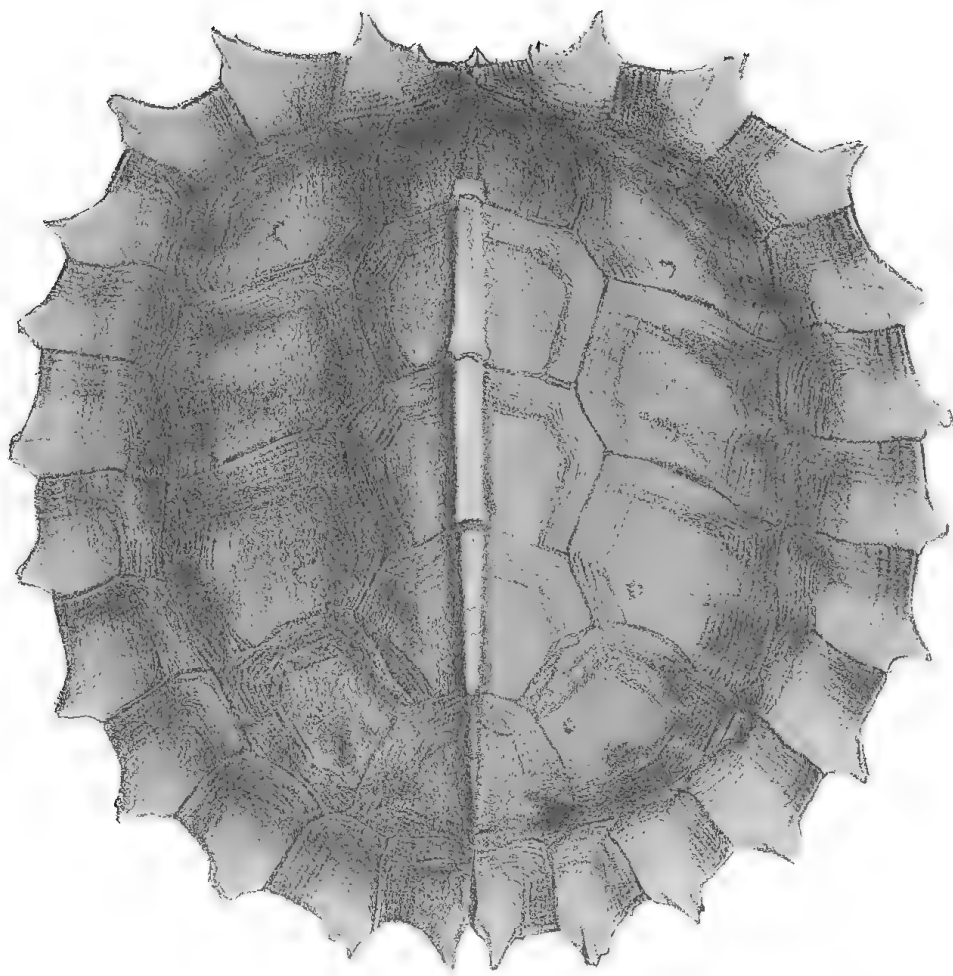
From D^r Buchanan Hamiltons Drawings.

2.....THICKNECKED TERRAPIN. EMYS CRASSICOLLIS. Bell Mjs.

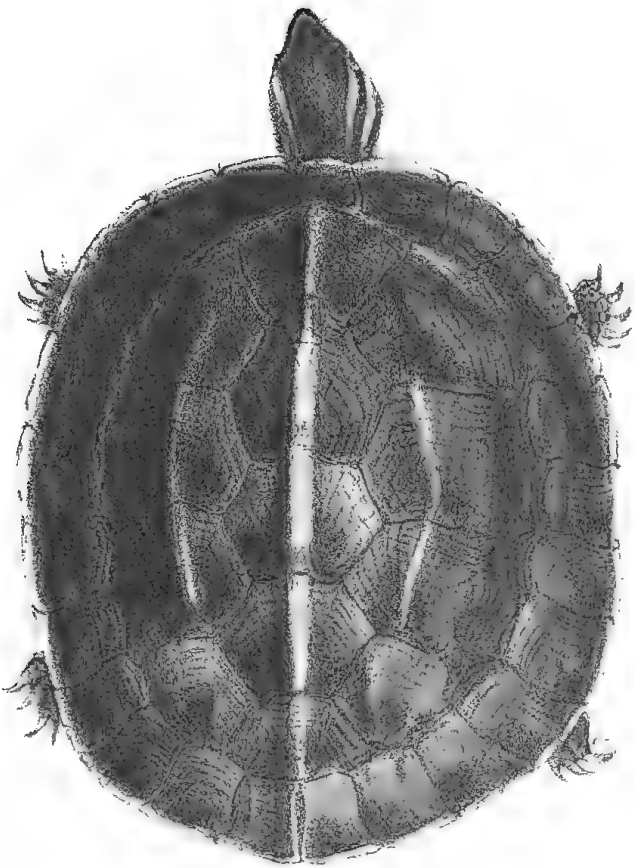
Mus D^r Bell.

Published by Messrs Treuttel Wirtz & Co Soho Square
Printed by W Day.

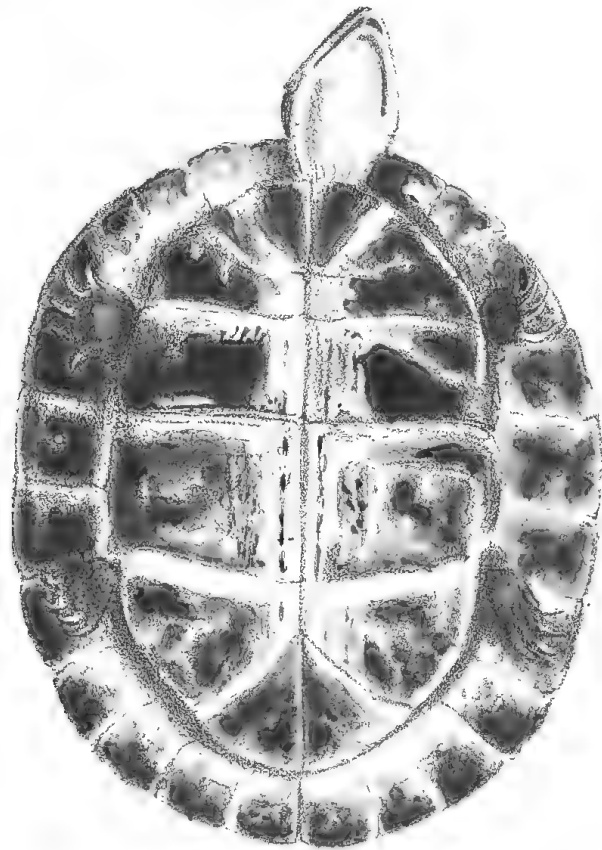
1



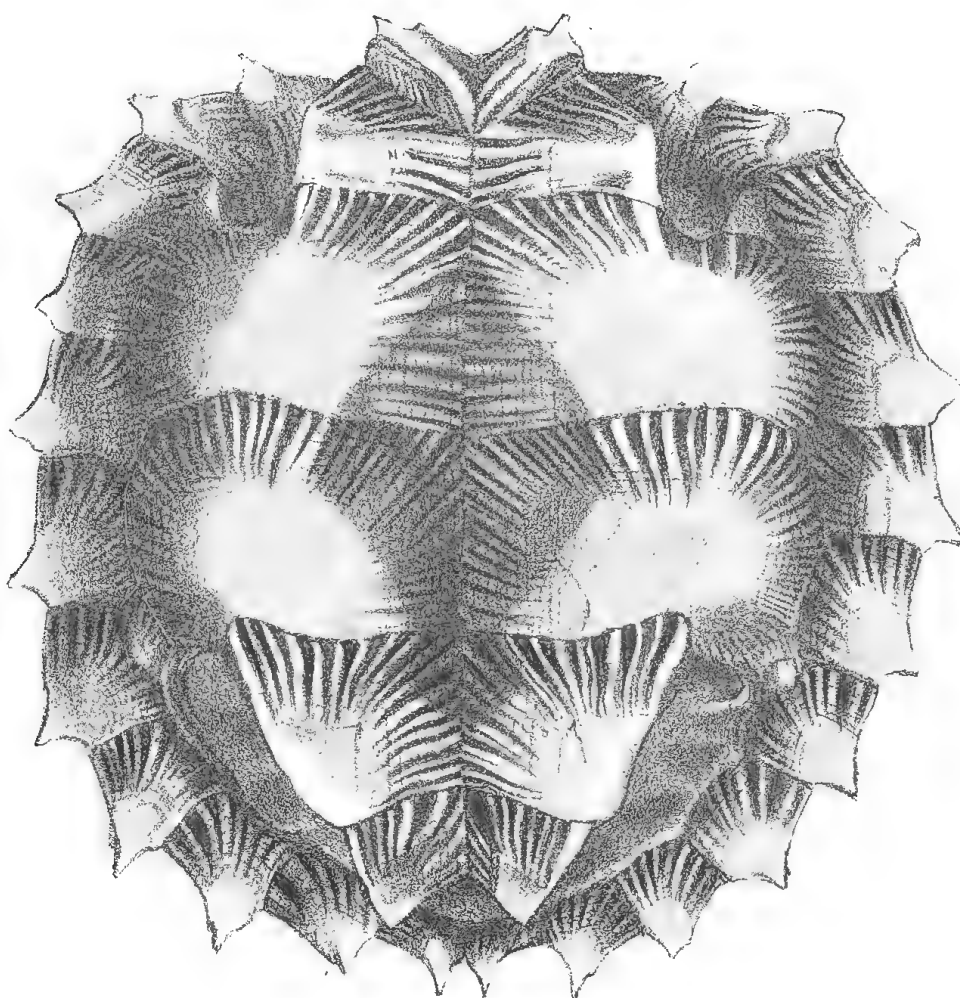
5



4



2



1 . 2

EMYS SPINOSÆ. Bell. Penang.

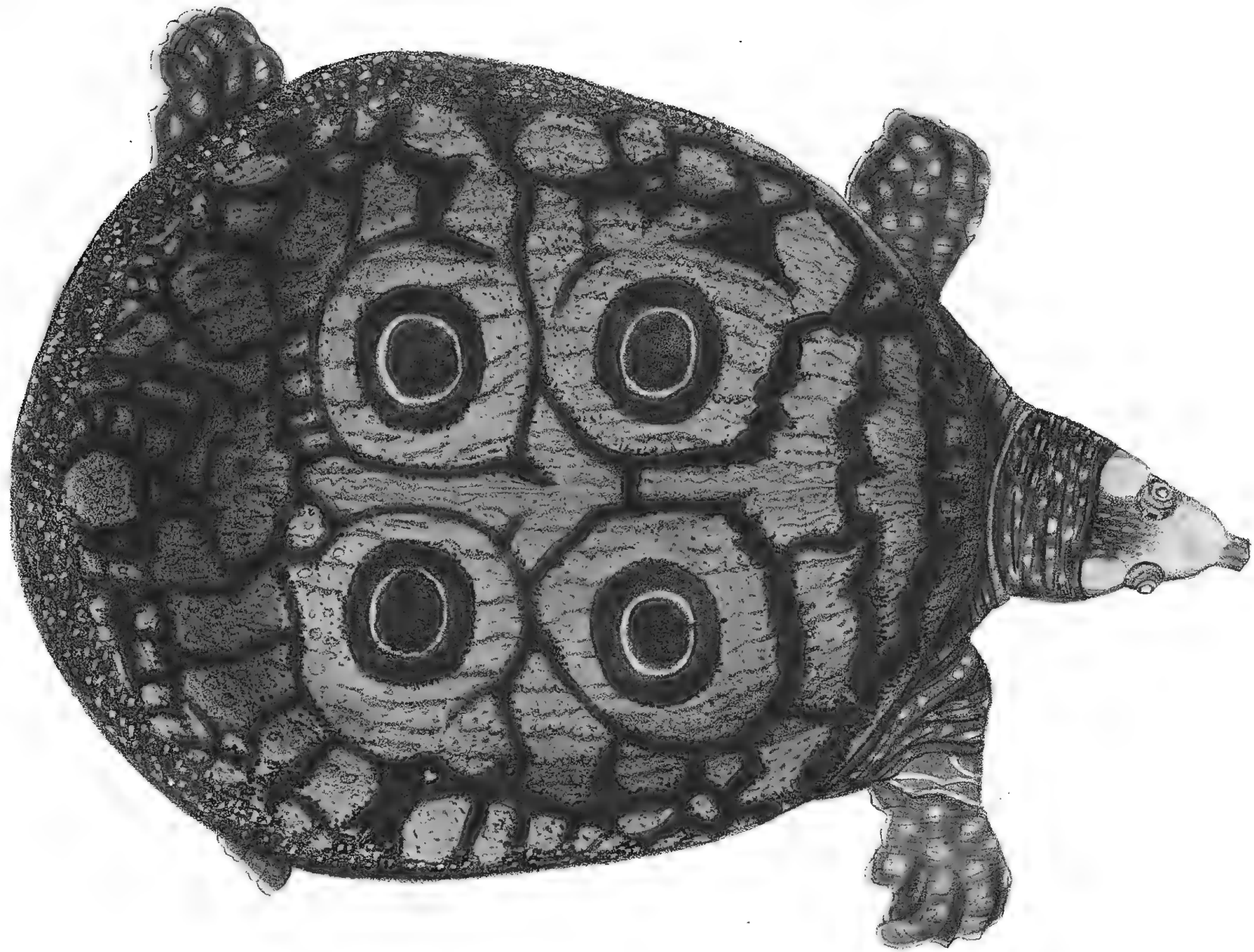
3 . 4

CISTUDA AMBOINENSIS. Amboina. Nat. Size

B.W. Hawkins lithog.

Published 1829, by Purbury, Allen & Co. Leadenhall Street.

Printed by W. Day 17. Gate Street

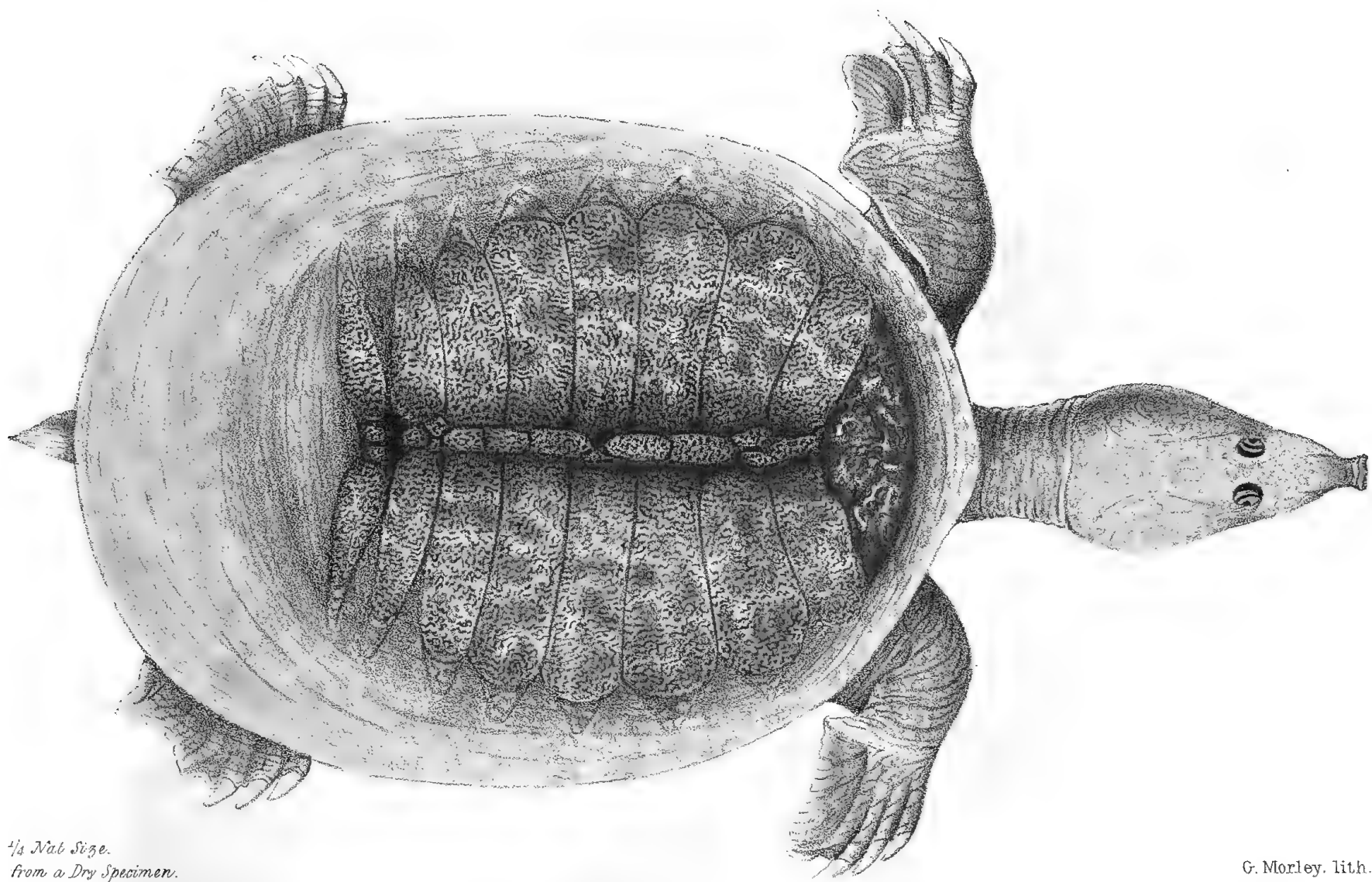
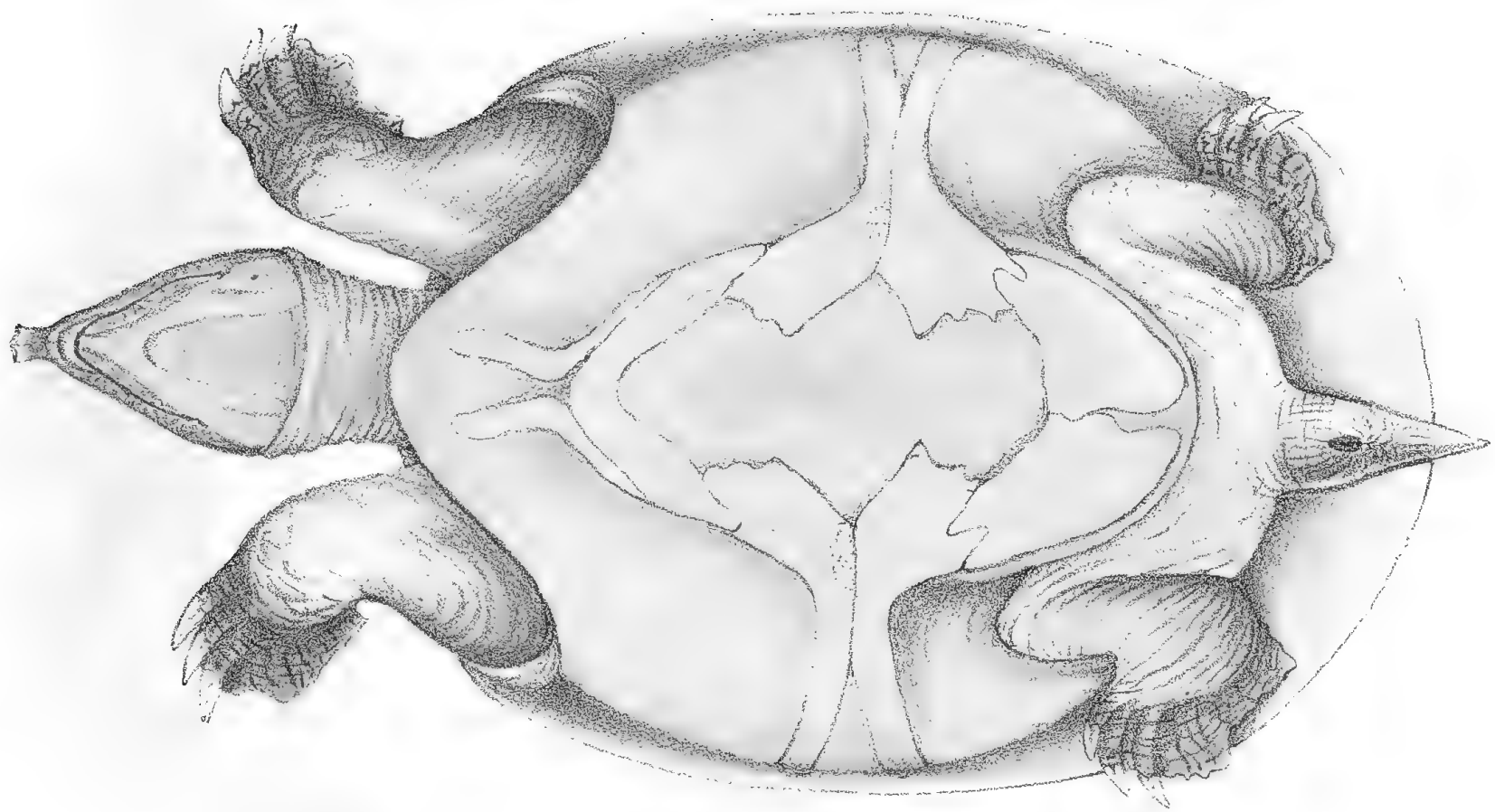


W.B.Hawkins lithog.

TRIONYX OCCELLATUS. n. EYED TRIONIX.

From D^r Buchanan Hamilton's Drawings.
India. .

*Published 1829 by Parbury Allen & C^o Leadenhall Street.
Day, lithog. 17 Gate St.*

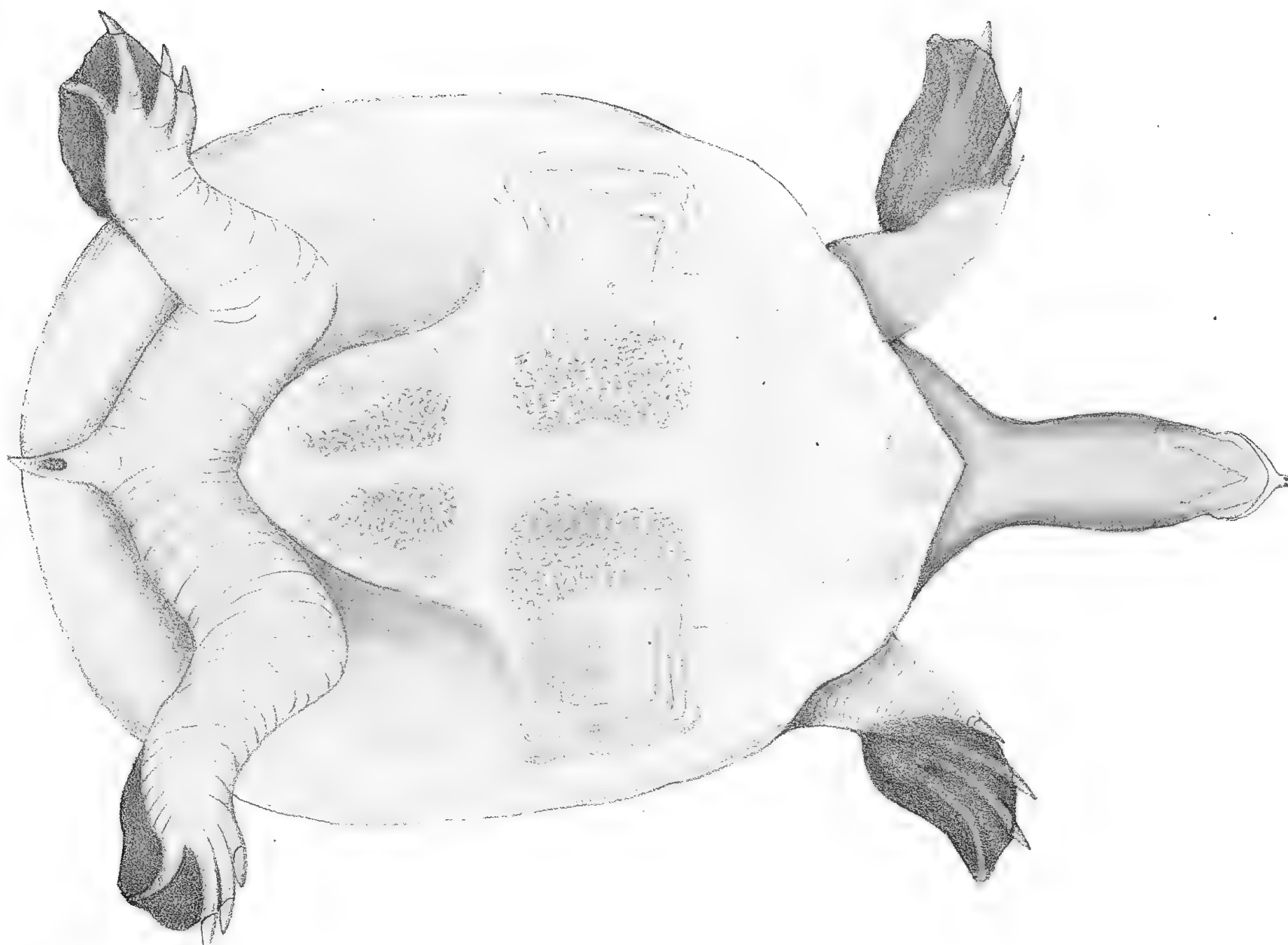
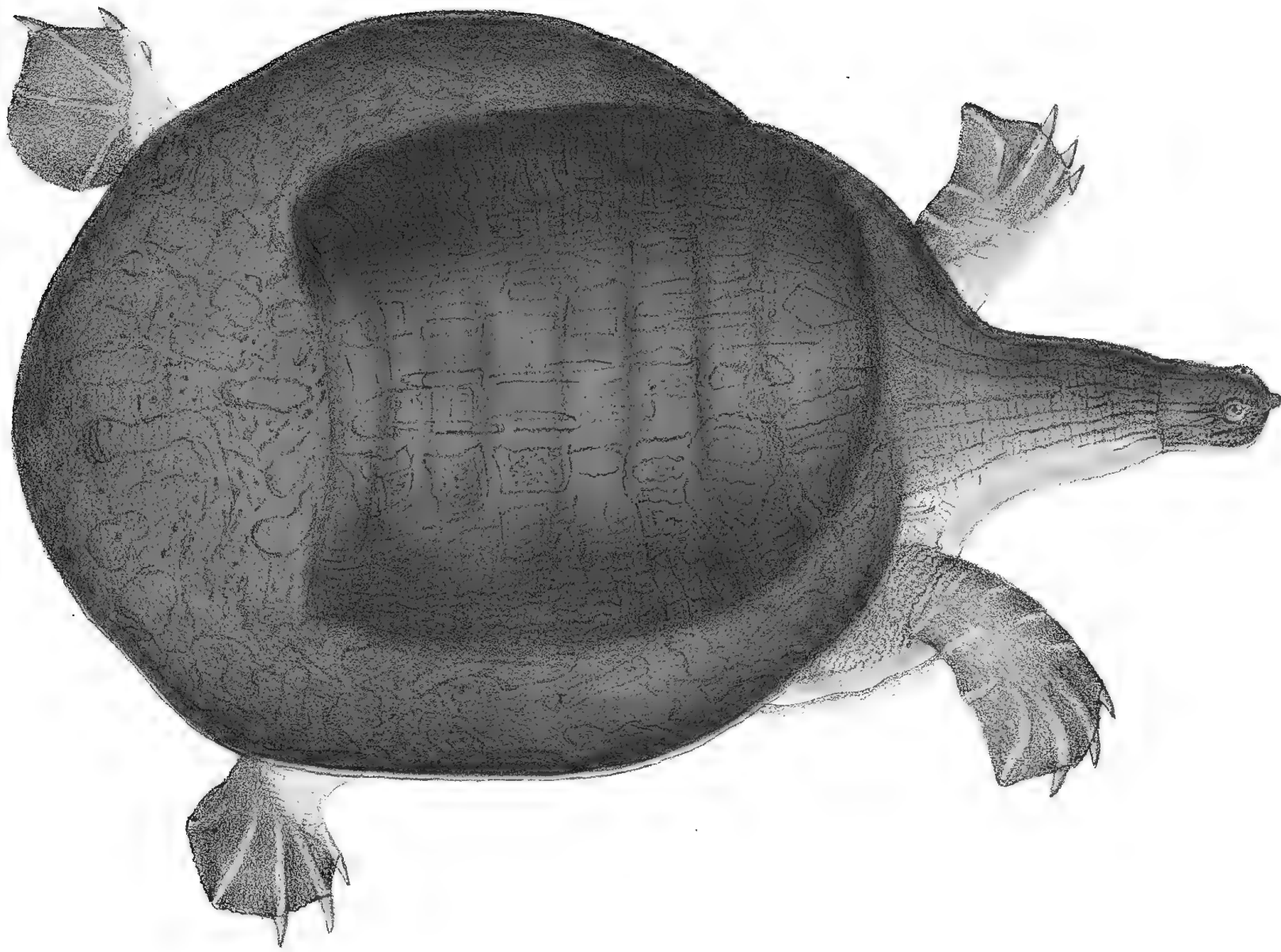


*1/3 Nat Size.
from a Dry Specimen.*

G. Morley. lith.

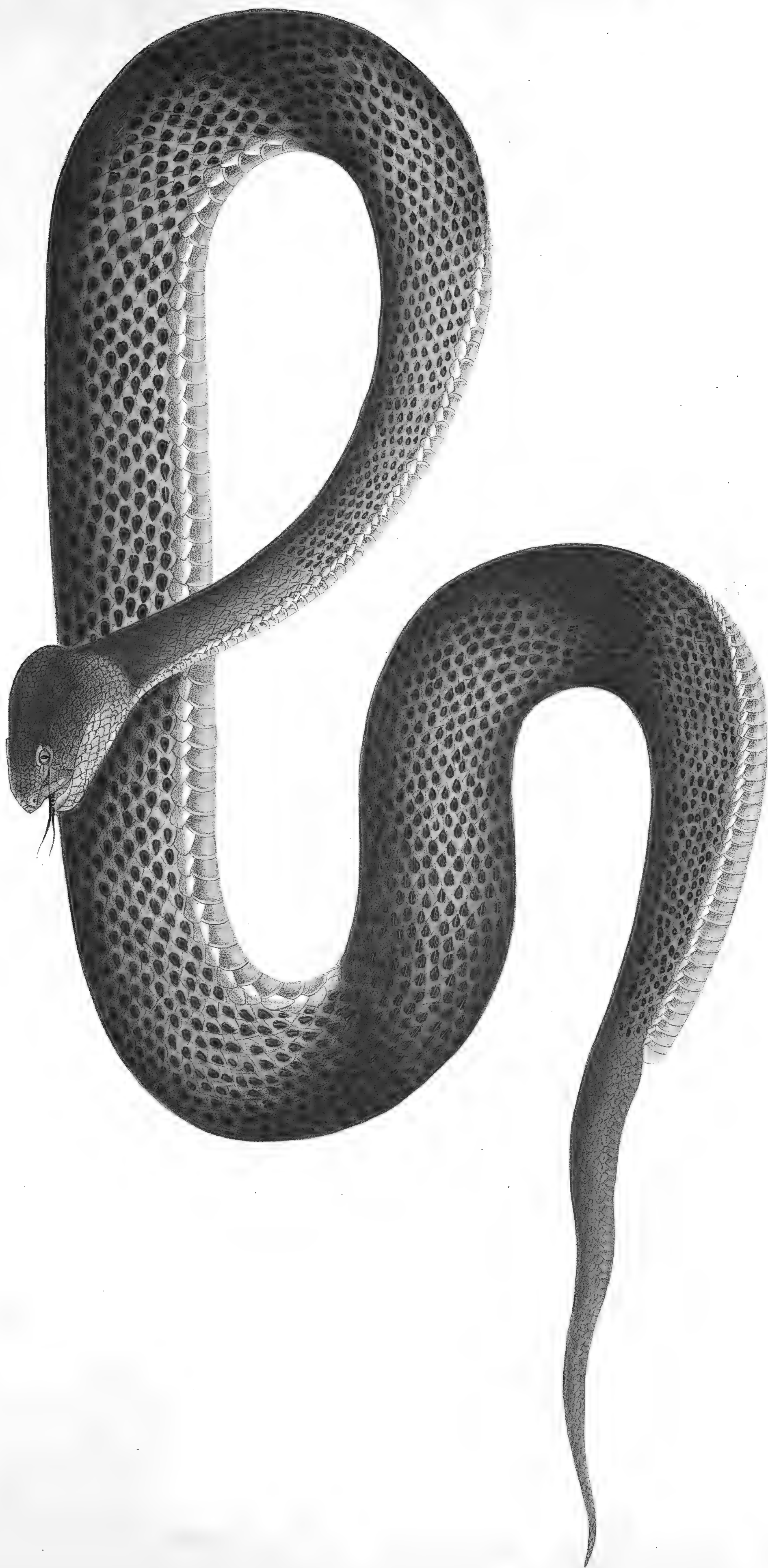
TRIONYX SUBPLANUS. Geoff. FLAT TRIONYX.
India.

*Published 1829 by Parbury Allen & Co. Leadenhall Street.
Printed by W Day 17 Gate Street*



TRIONYX AEGYPTIACUS. Var. Indica. n. EGYPTIAN TRIONYX. Indian. Var.
Ganges, called Sewteree, sometimes grows to 240 lbs.

*Published 1829 by Parbury Allen & Co. Leadenhall Street.
Printed by W. Day 17 Gate Street.*

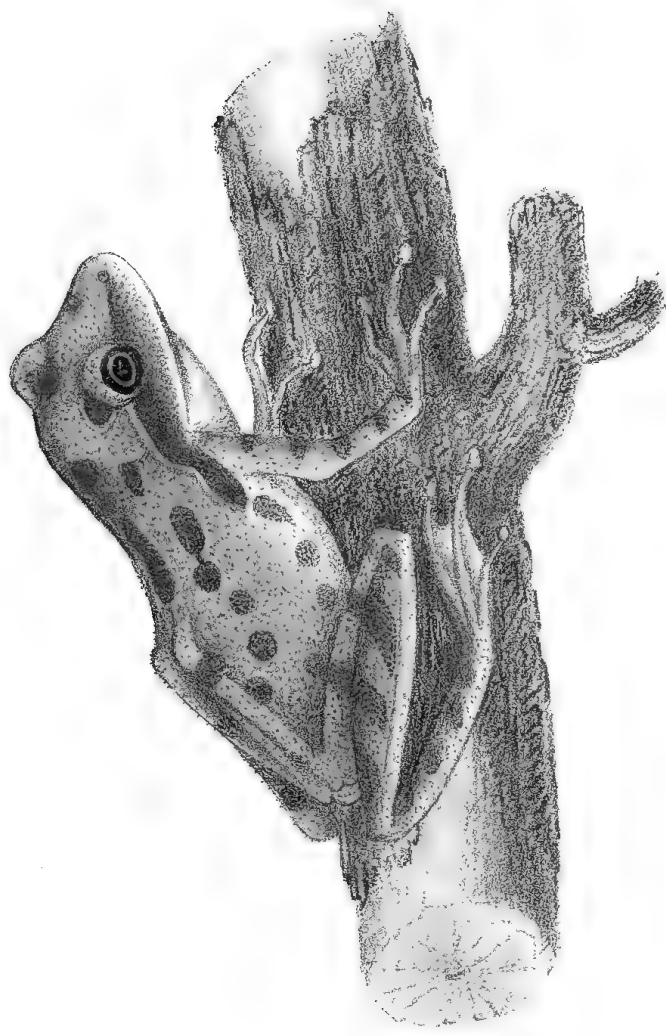


1977-1978

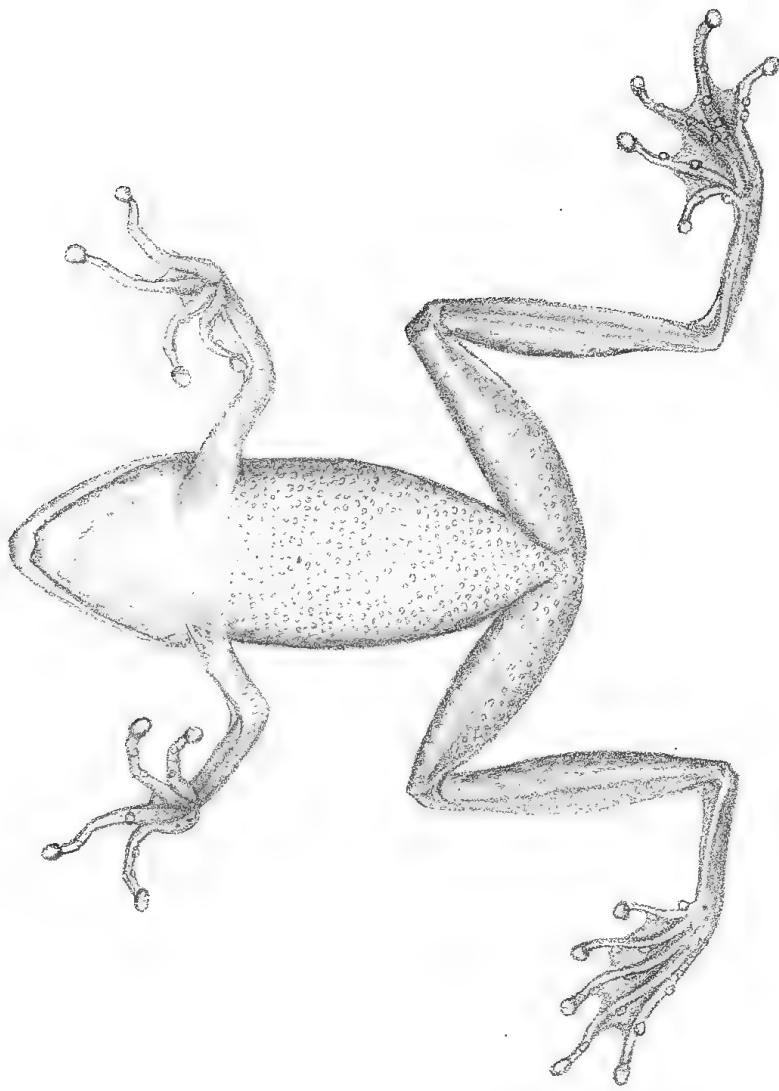
Figure 1 is a line graph showing the percentage of total protein in the supernatant versus the percentage of total protein in the pellet for various proteins. The y-axis is labeled 'PERCENTAGE OF TOTAL PROTEIN IN SUPERNATANT' and ranges from 0 to 100. The x-axis is labeled 'PERCENTAGE OF TOTAL PROTEIN IN PELLET' and ranges from 0 to 100. The graph shows several data points for different proteins, with some points clustered together and others more spread out. The points are labeled with numbers 1 through 10, corresponding to the proteins listed in the legend.

[illegible]

1



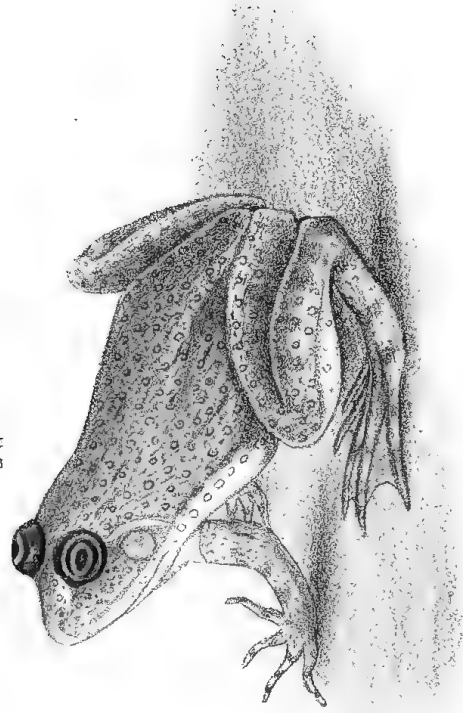
1a



1, 1a. *HYLA MACULATA*, n. SPOTTED TREE FROG.
BENGAL.



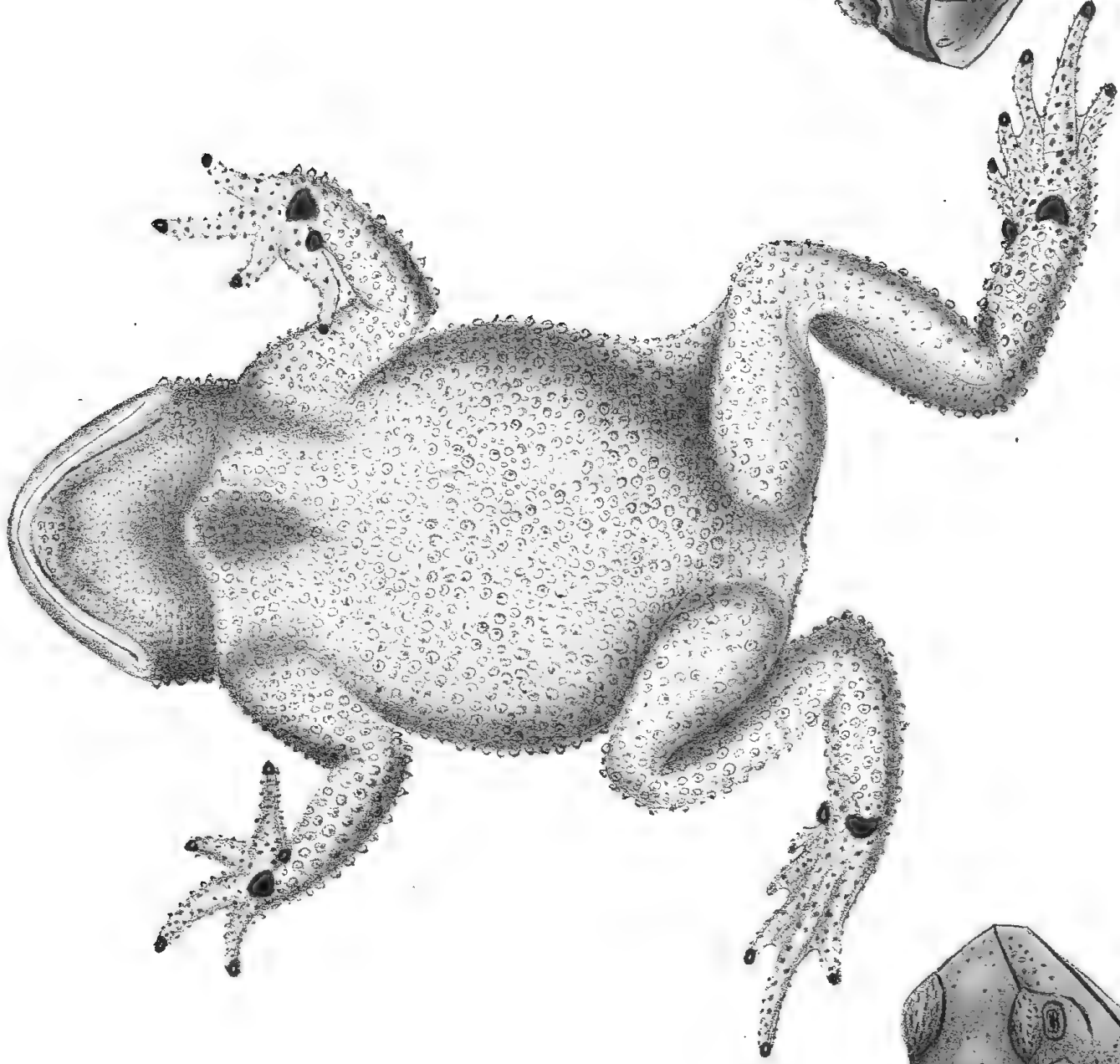
2a



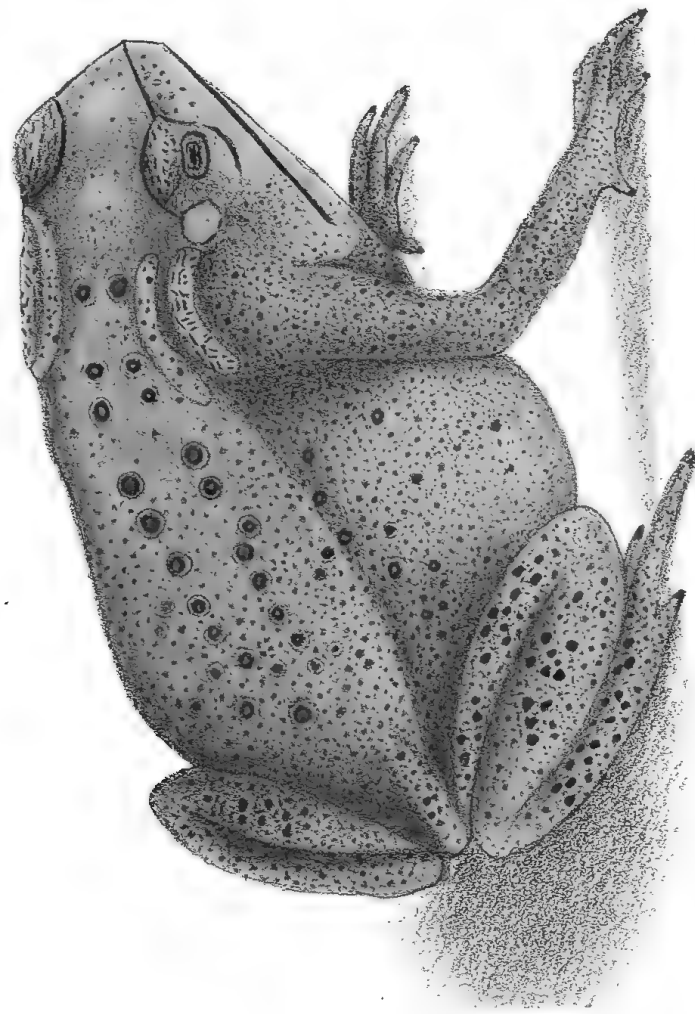
2, 2a. *RANA BENGALENSIS*, n. BENGAL FROG.
BENGAL.

Published by the Government of India, 1928.
Printed by the Government of India, 1928.

2a

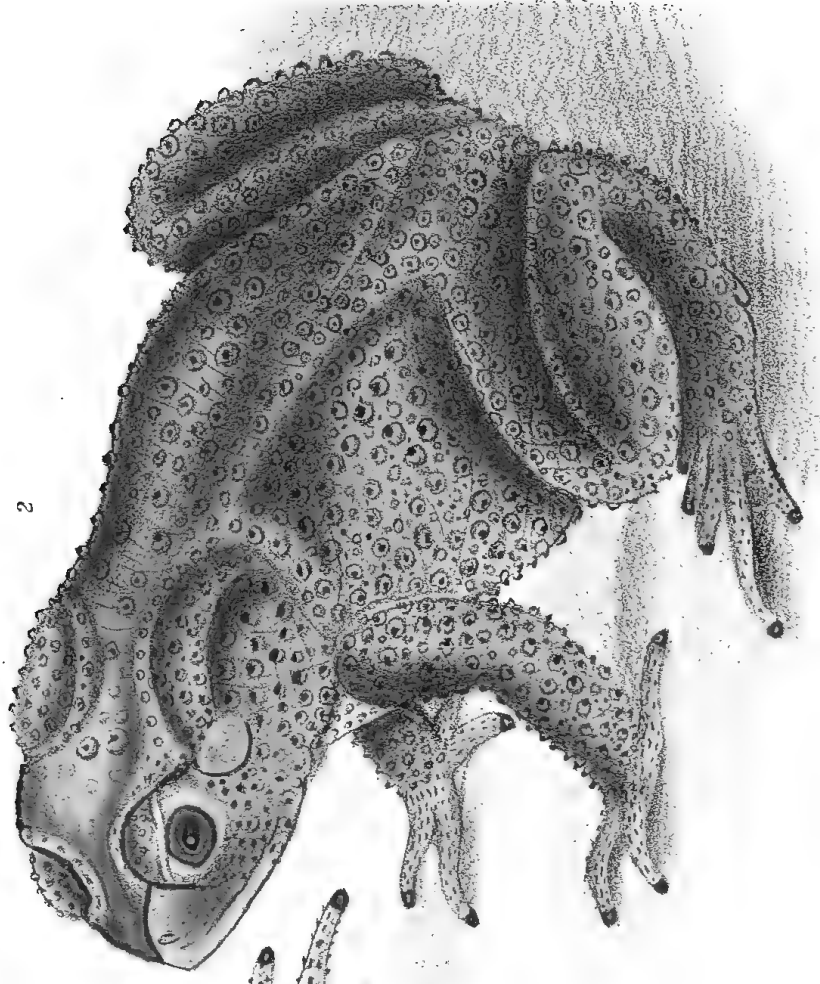


1



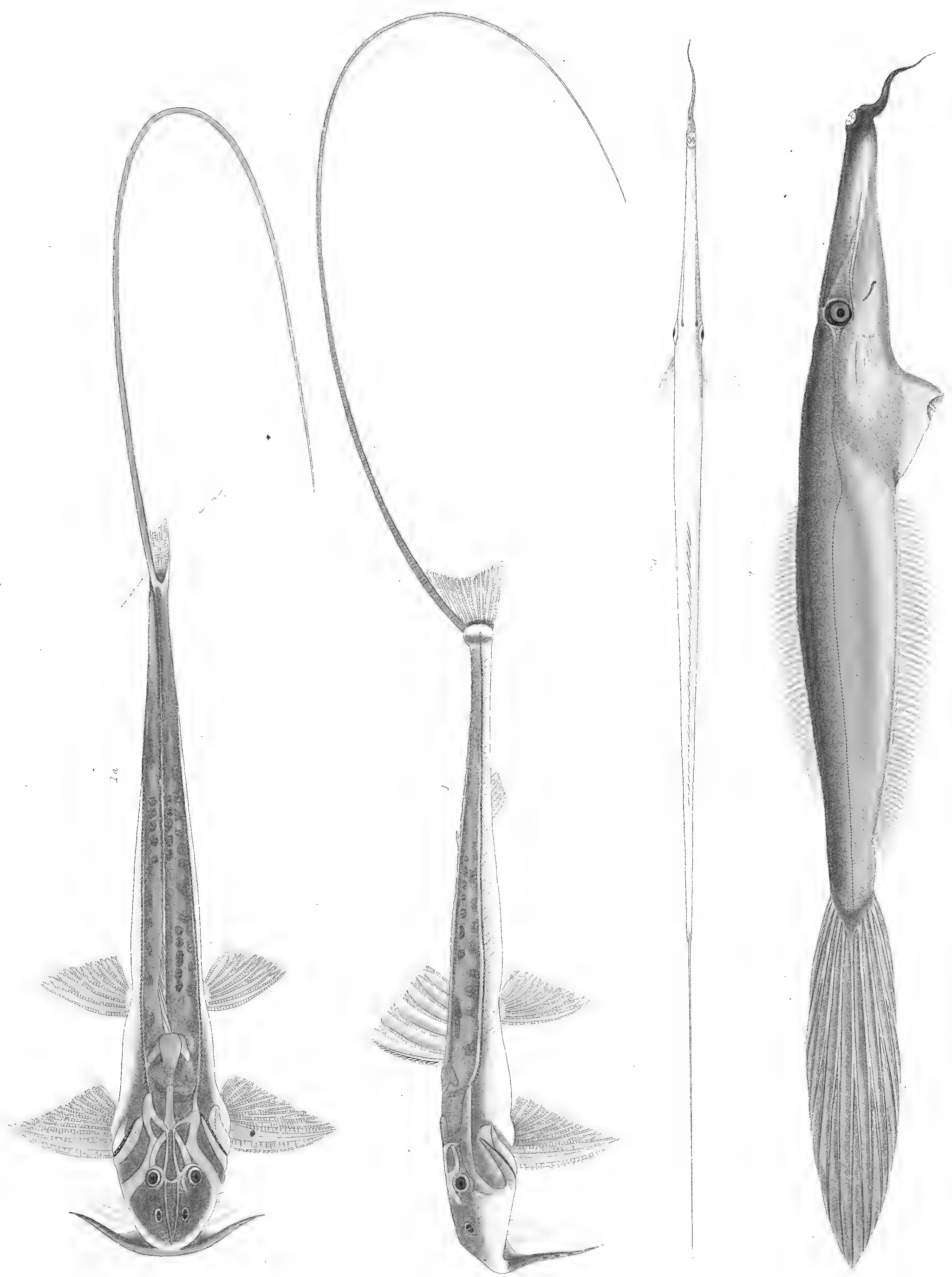
Uta carinata, KEEL-Nosed TOAD
BENGAL

2



Uta dubia, DOUBTFUL TOAD, Shaw.
BENGAL.

London: Published Sept. 1829, by Parbury, Allen & Co. Ludlowhall St.
Printed by Eyre, Newman, and Gifford.

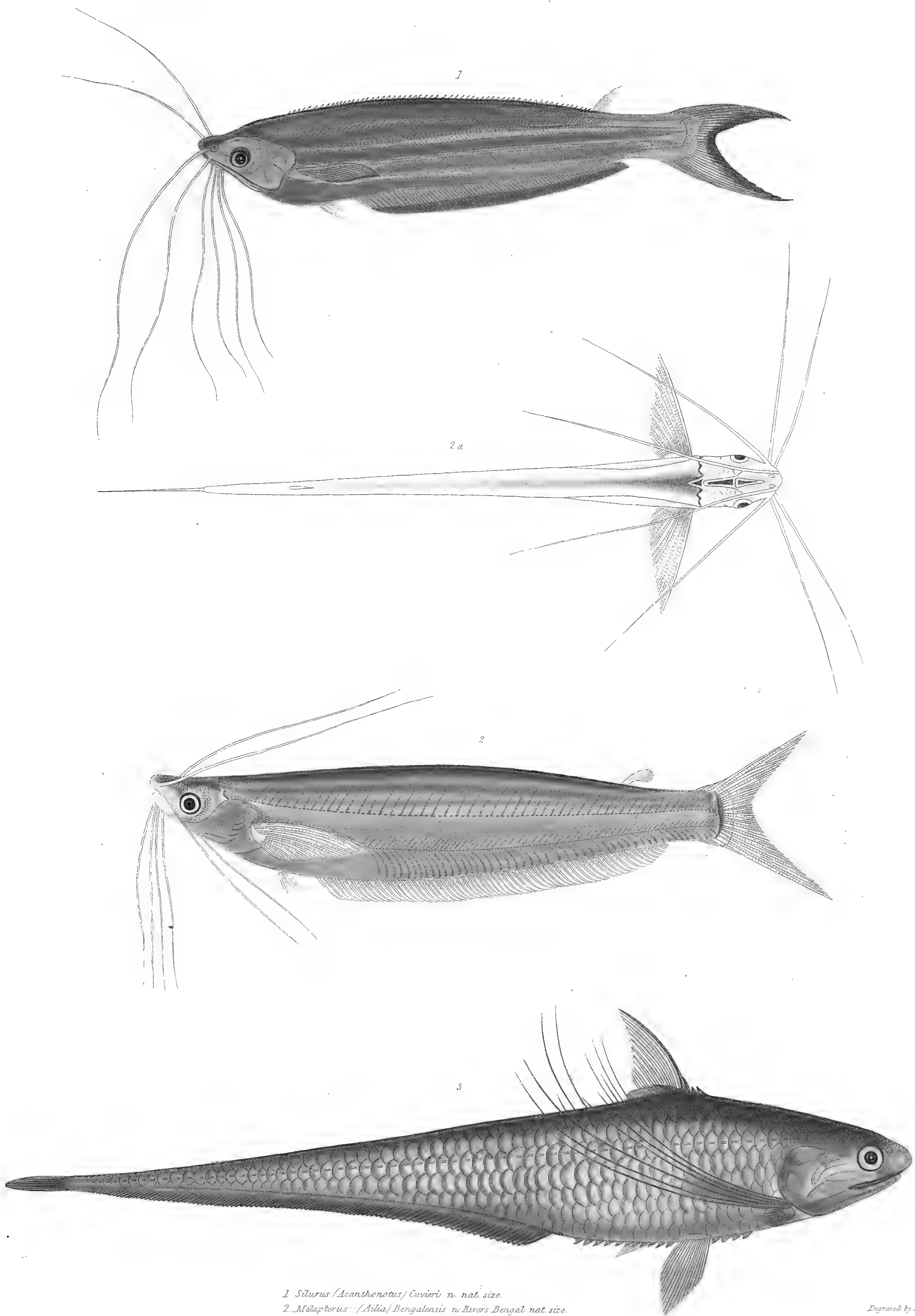


Plates. Fish

1 *Naso barbipinnatus* Hamilton, *Naso* 1 is not size
2 *Barbipinnatus barbipinnatus* (Hamilton) *Naso* not size

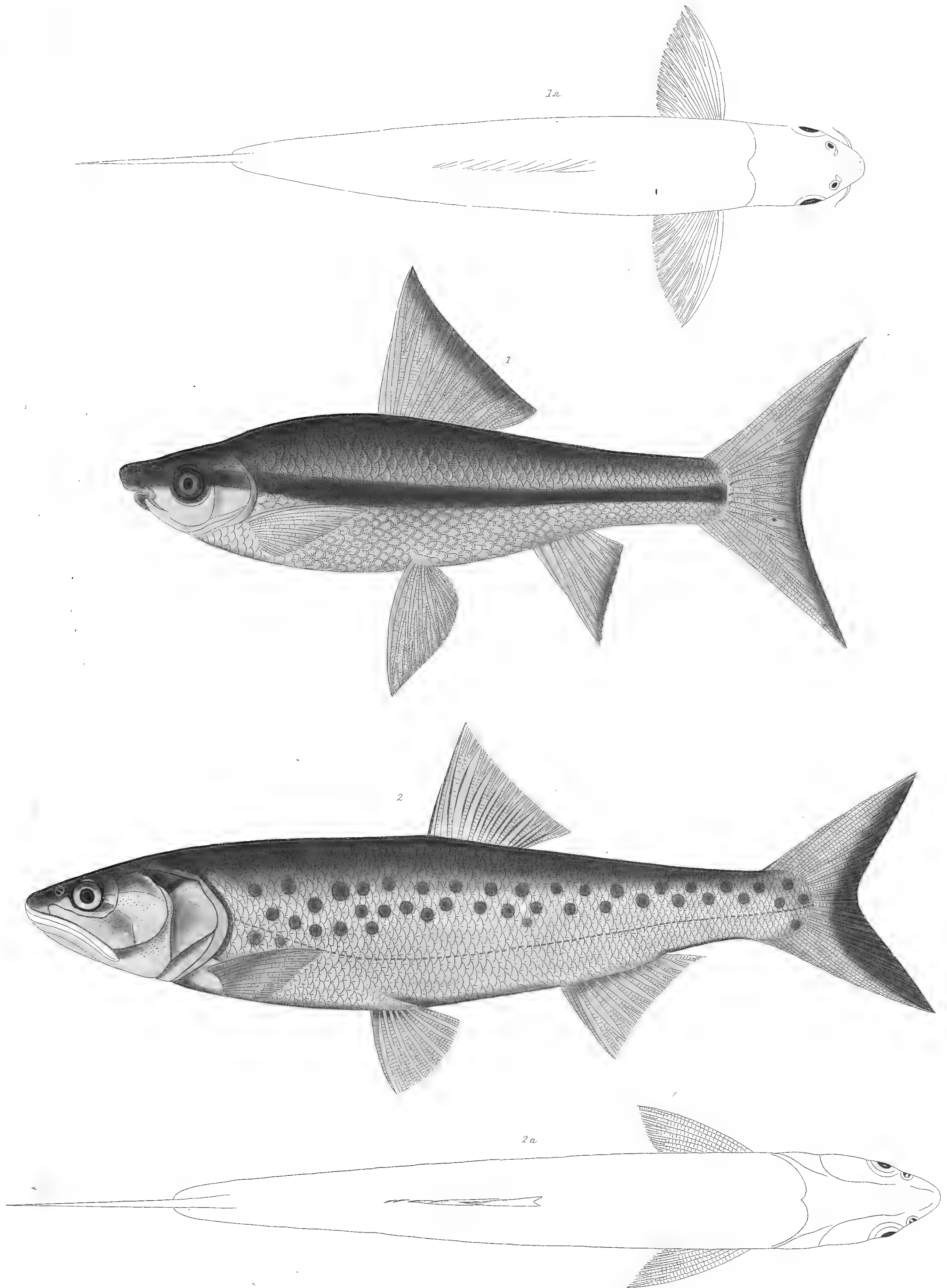
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Naso barbipinnatus



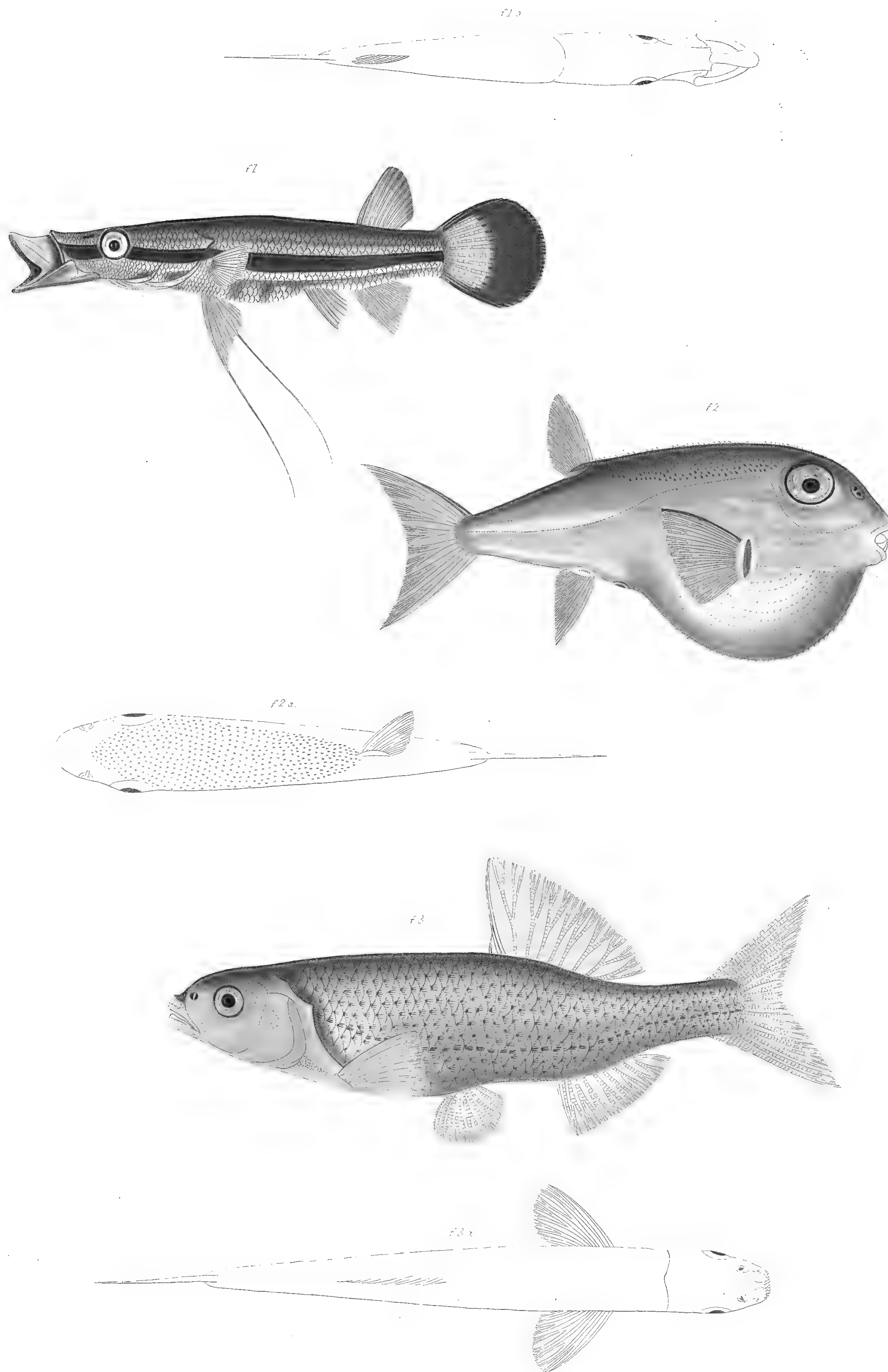
1. *Silurus (Acanthonotus) Cuvieri* n. nat. size.
2. *Melapterus (Ailia) Bengalensis* n. Rivers Bengal nat. size.
3. *Engraulis (Coilia) Hamiltonii* n. Rivers Bengal nat. size.

Engraved by J. Swain



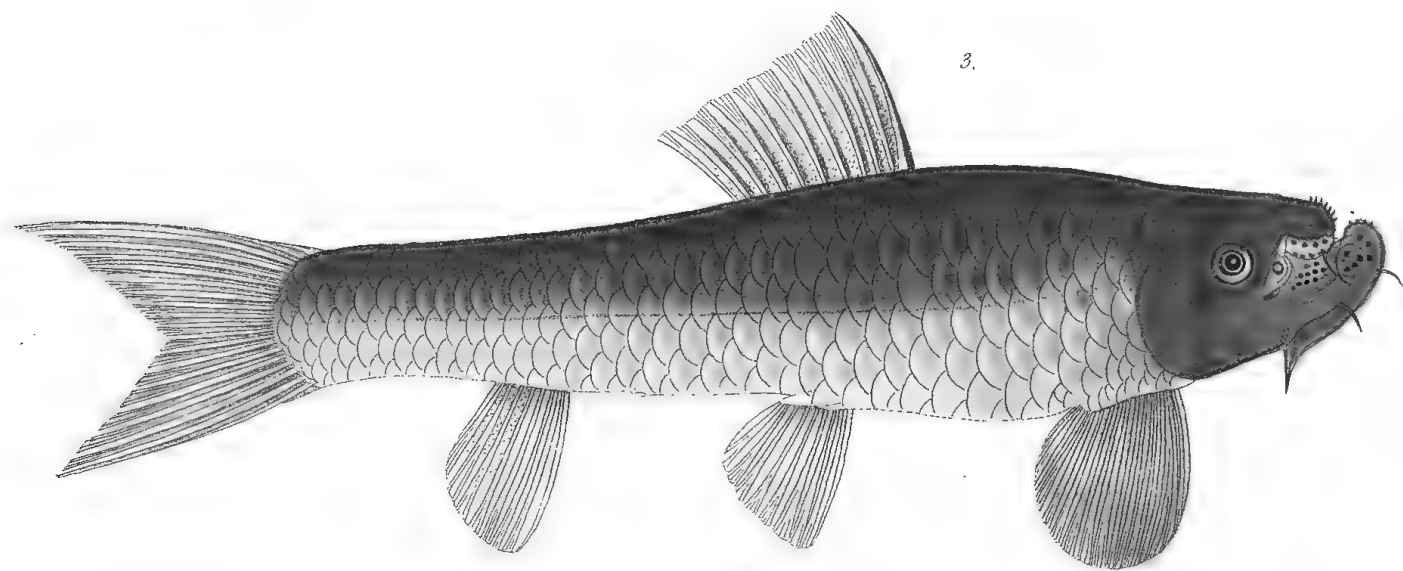
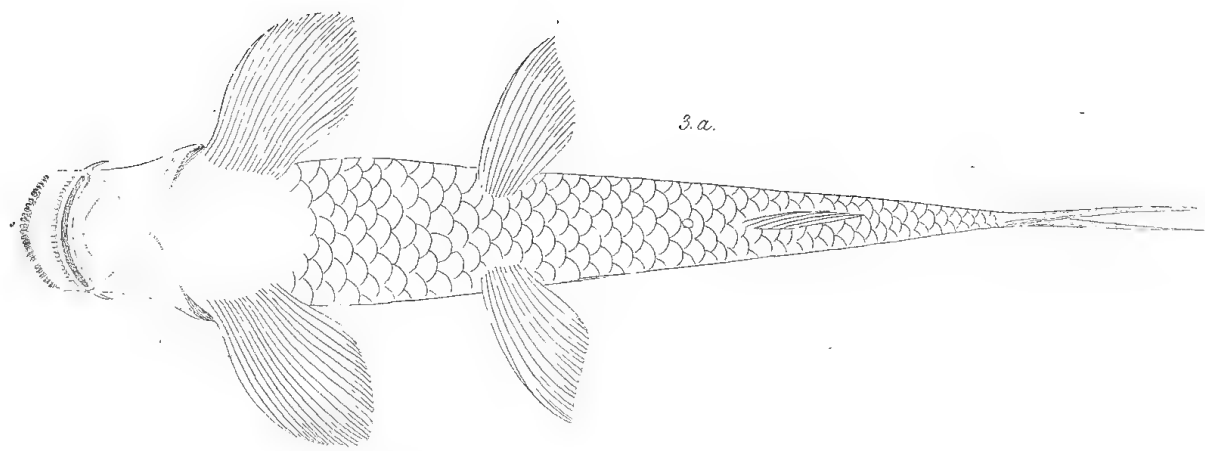
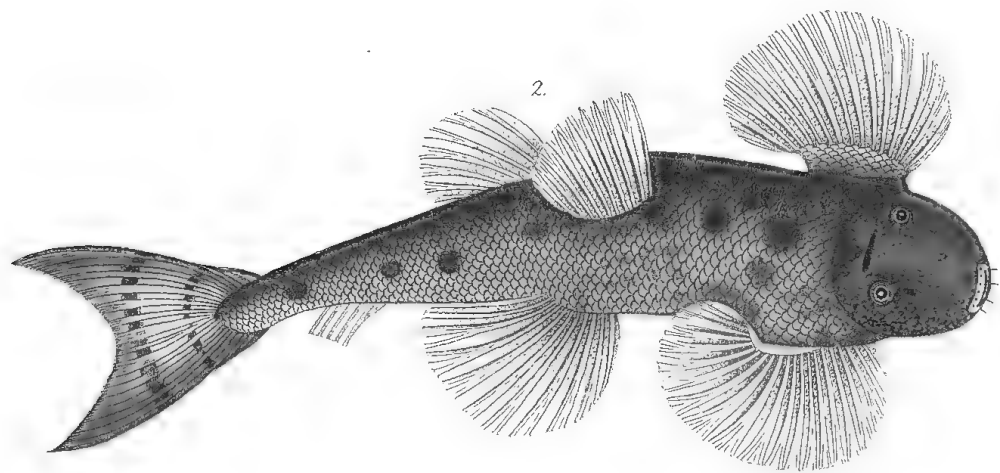
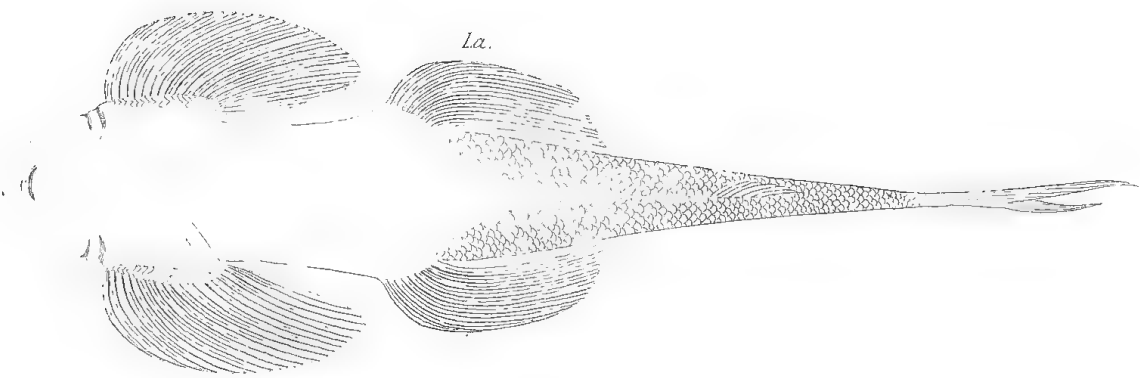
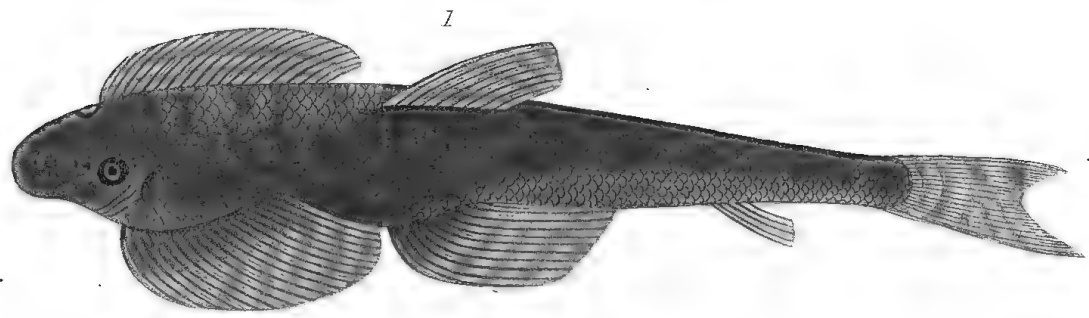
1. *Cyprinus (Bangana) Hamiltonii* Gray nat. size
2. *Cyprinus (Leuciscus) Gohi* Hamilton. nat. size Kosi & Son River.

Engraved by J. Swaine.



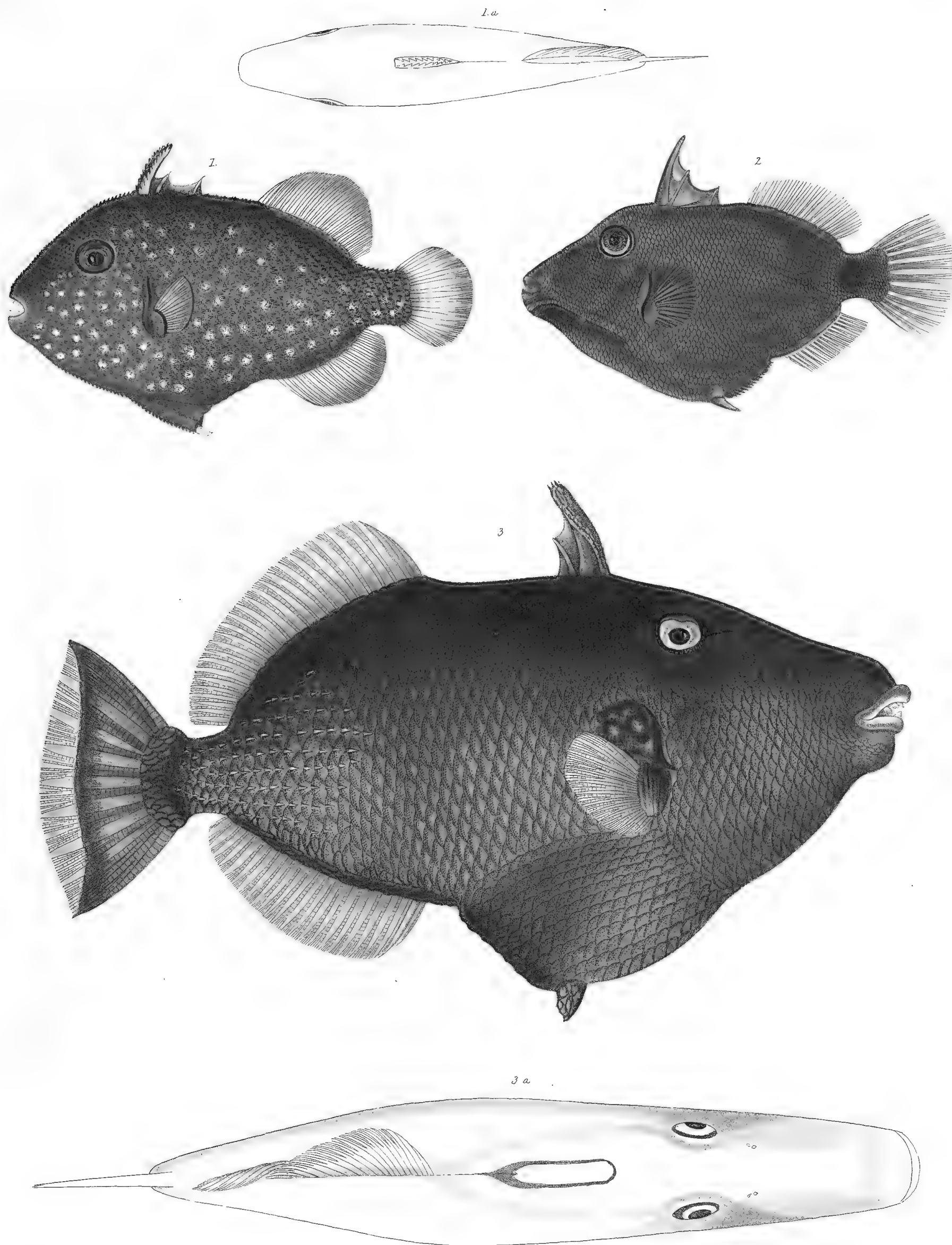
1. *Diplopterus pulcher* Gray nat size.
2. *Tetraodon lineopleurus* Gray Indian Ocean nat size.
3. *Cyprinus Chedra* Hamilton Rivers of Bengal nat size.

Engraved by J. Swaine

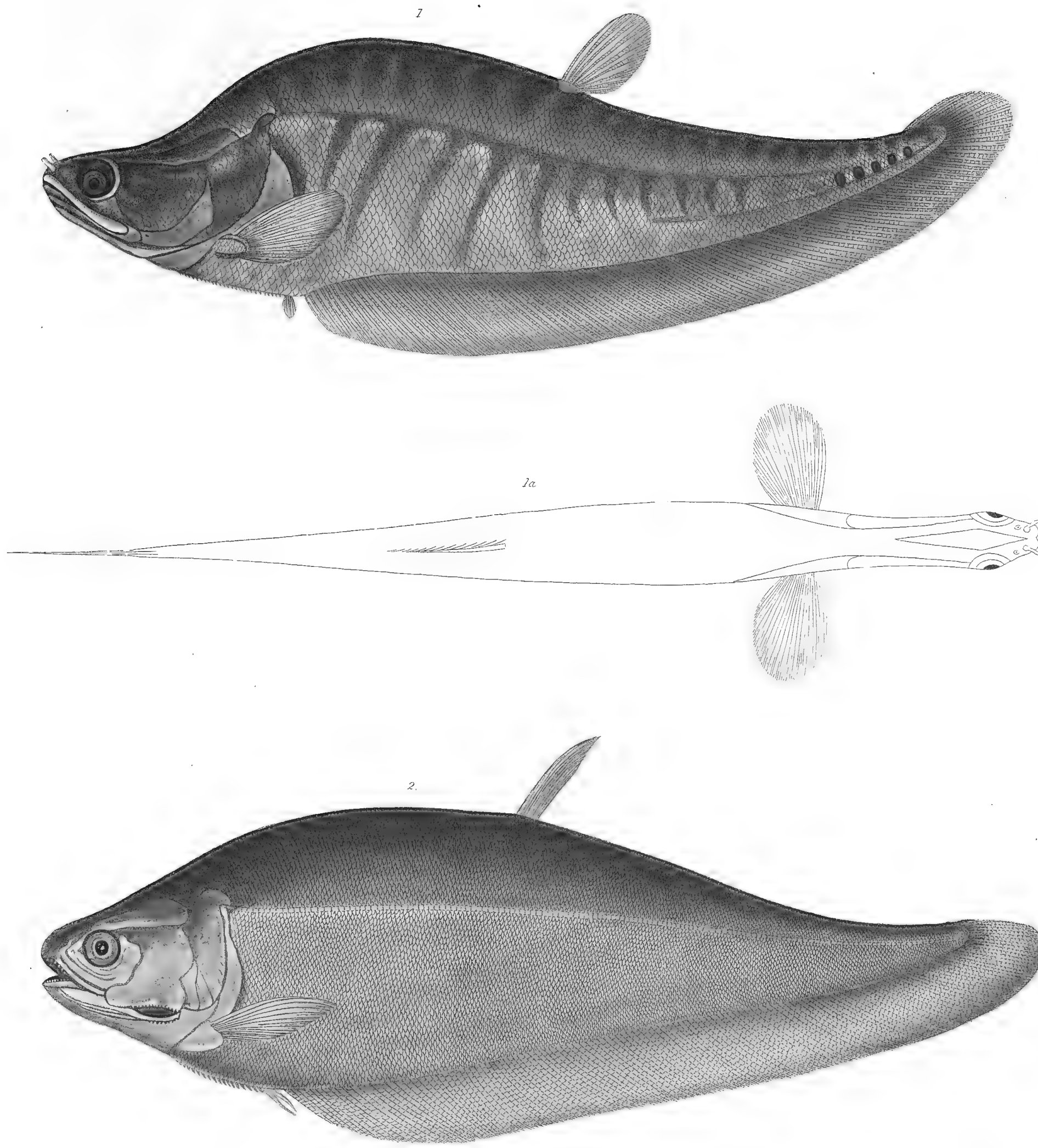


1. *Balitor Brucei*. Gray Mountain Stream, India.
2. *Balitor maculata* Gray Mountain Stream, India.
3. *Cyprinus Gotylan*. Mountain Stream, India.

Engraved by J. Swaine

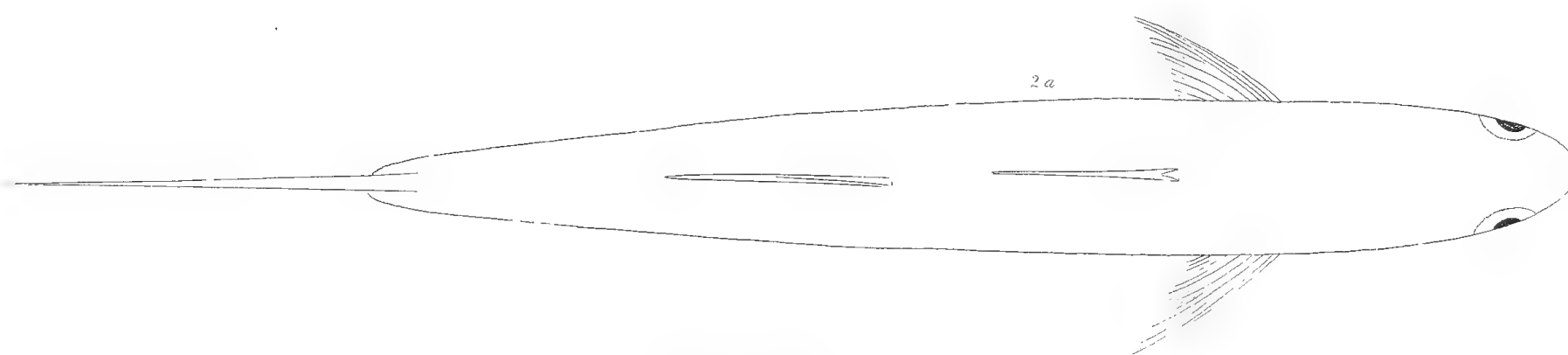
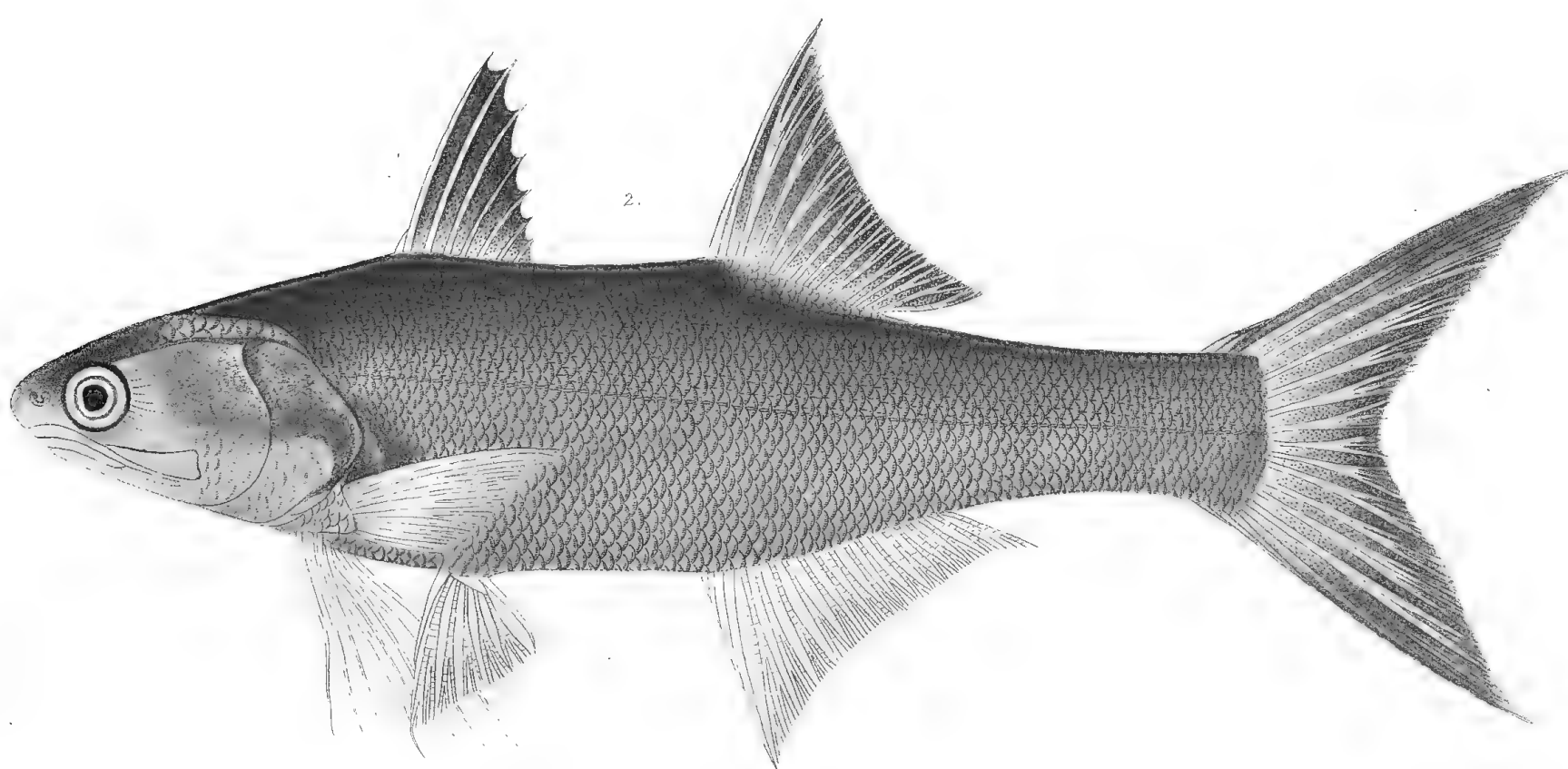
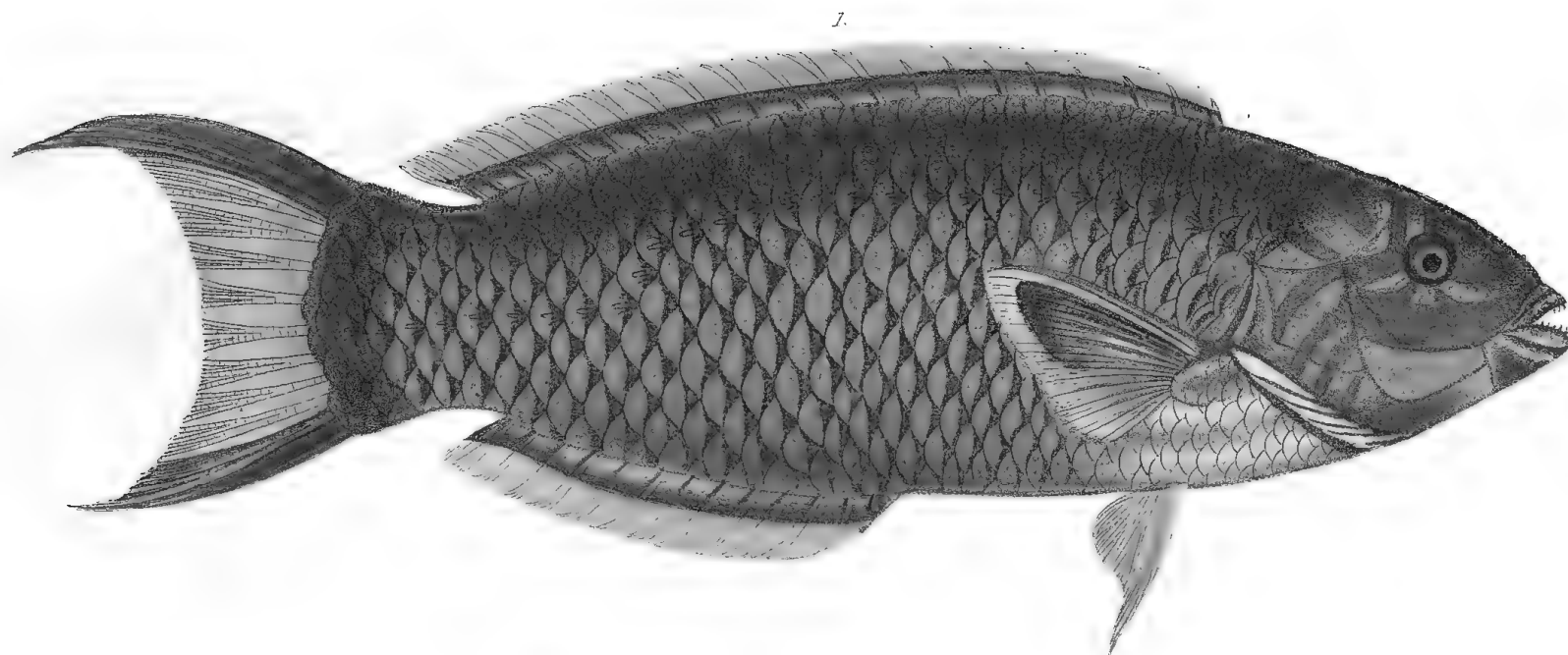


1. *Balistes oculatus* n.
2. *Ambomenus* n.
3. *Gubarmatus* n.

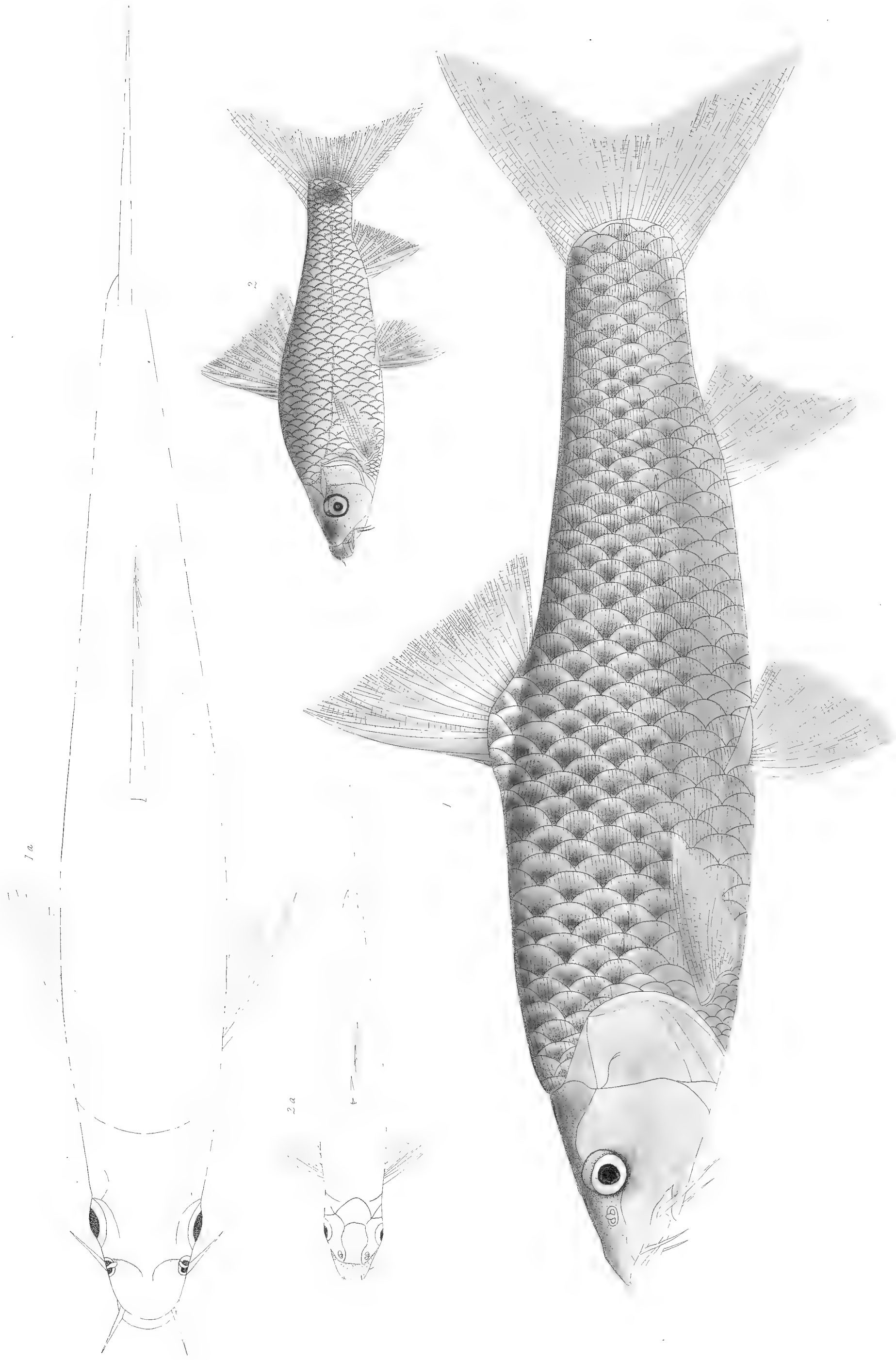


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1. *Mystus Chitala*, Ham.
2. *Mystus Karipat*, n.



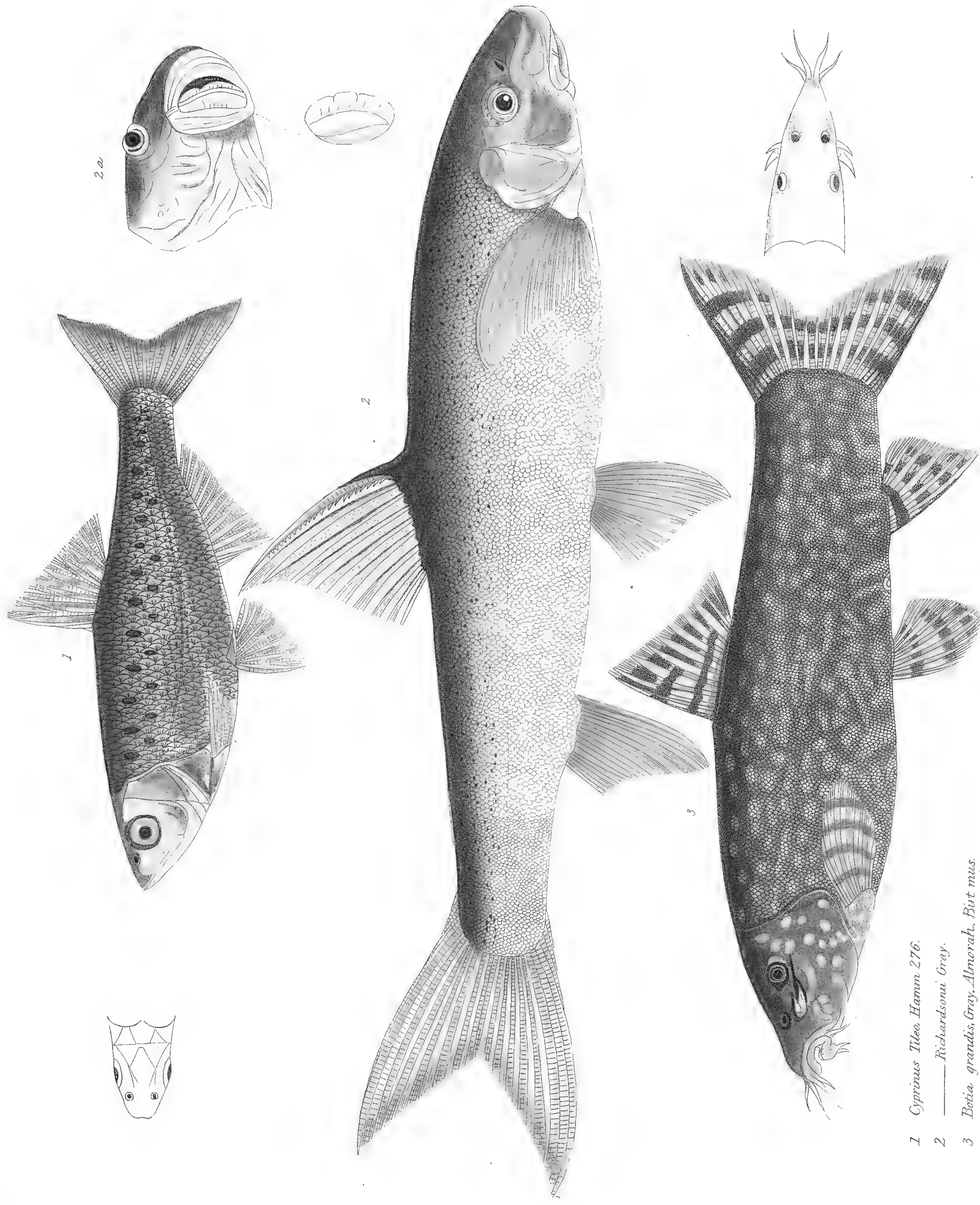
1 *Julis Ihirdakii* n.
2 *Polynemus Teria* Linn.



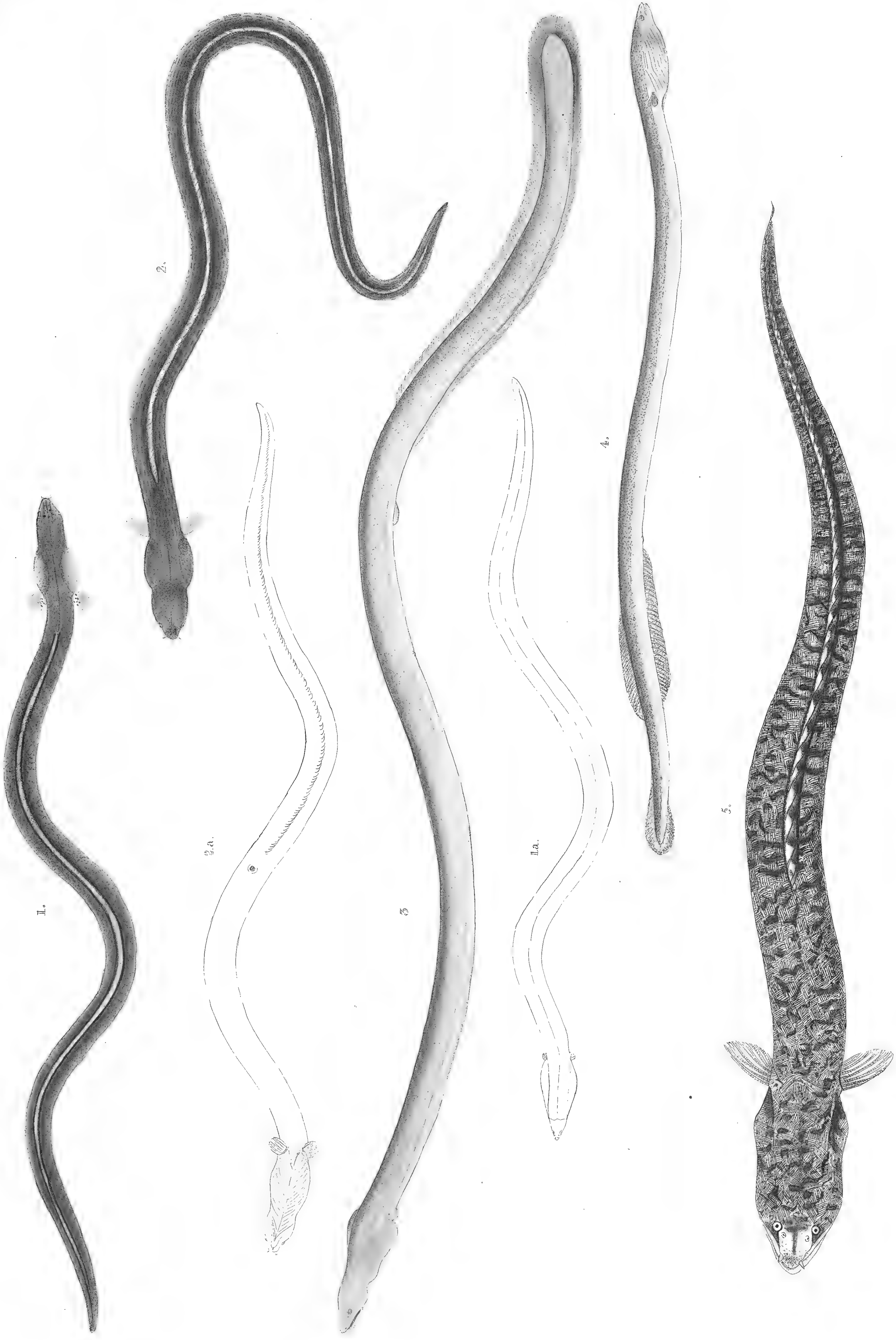
1. *Cyprinus Mosul* Hamilt.
2. *Morone* Hamilt.

Hamilt. 1822

Published by T. & A. Co. 10. 10. 10.



1 *Cyprinus Tilos*, Hamon 276.
 2 — *Richardsoni* Gray.
 3 *Betia grandis*, Gray, Almorah, Bit mus.



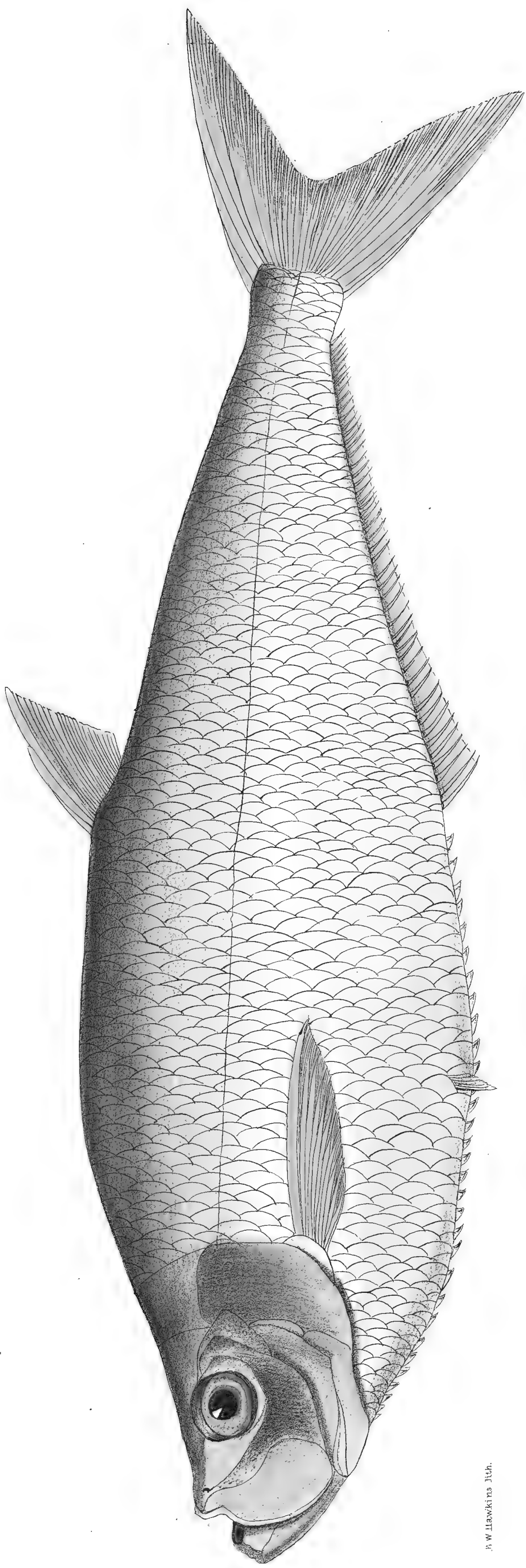
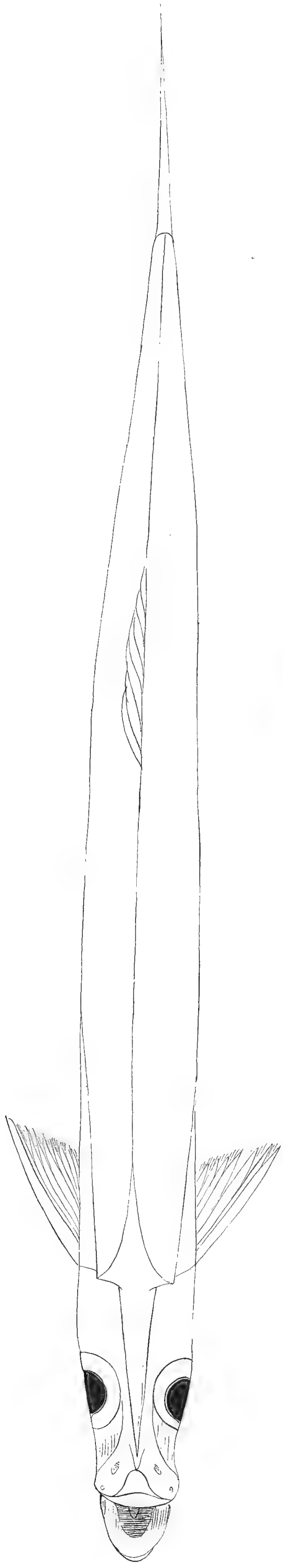
1. *OPHISURUS* BORO. Hamilton Mss.

2. *OPHISURUS* HURANCHA. Hamilton.

3. *MURÆNA* BENGALENSIS. n.

5. *MORINGUA* LINEARIS. n.

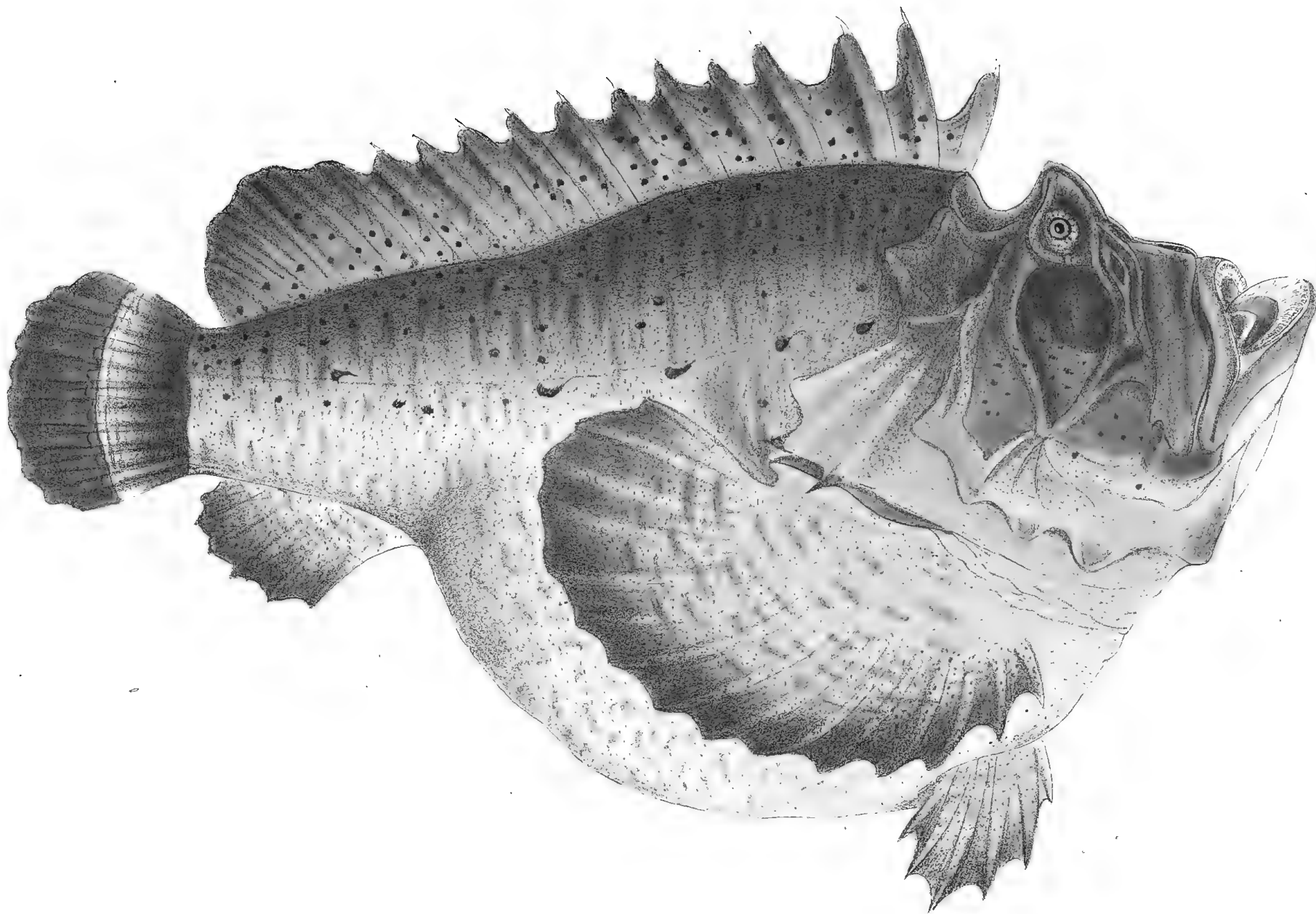
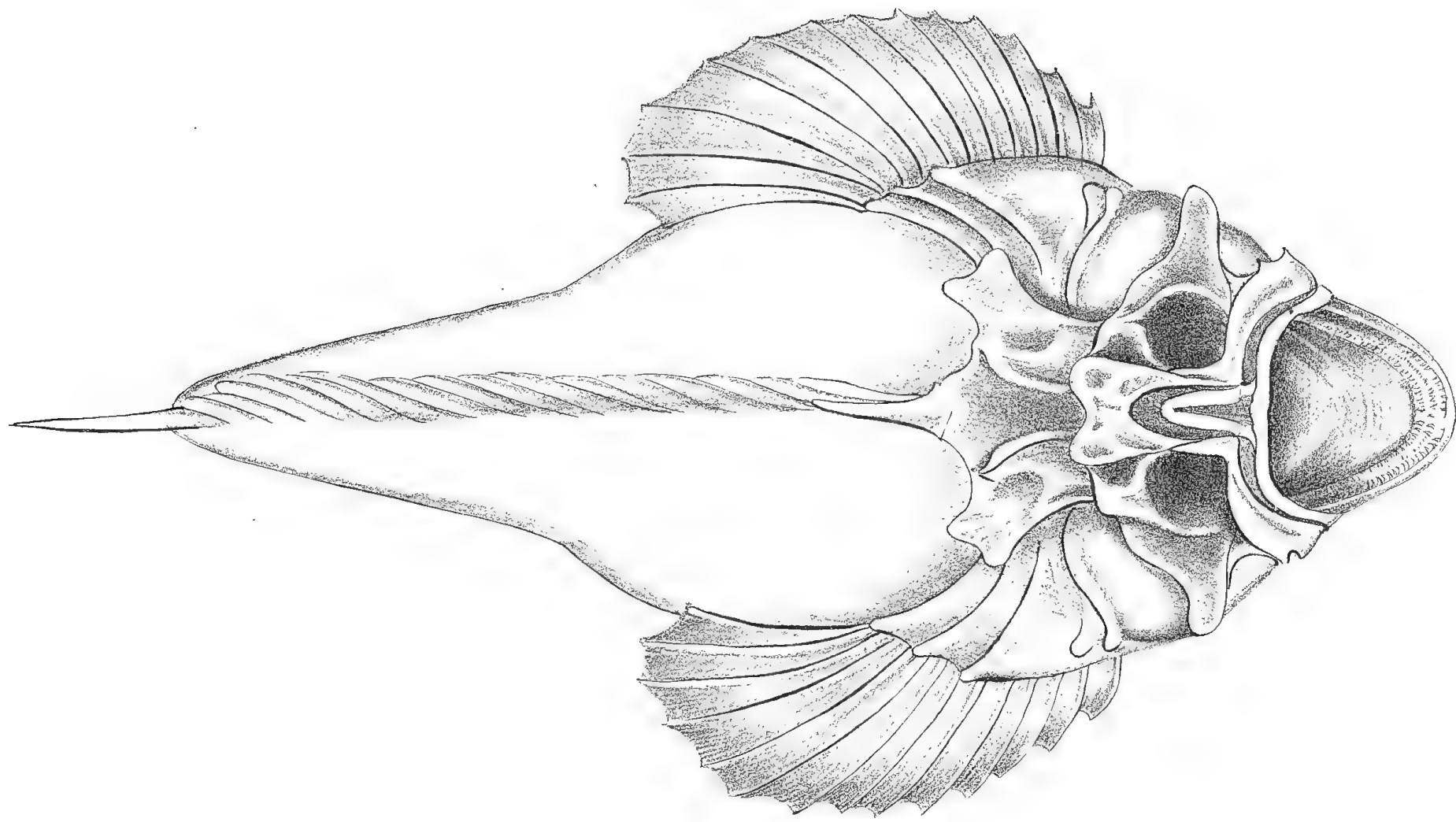
4. *EATAEOURA* HARDWICKII. n.



J. W. Lawski sculp.

CLUPEA AFFINIS n ALLIED HERRING.
Penang.

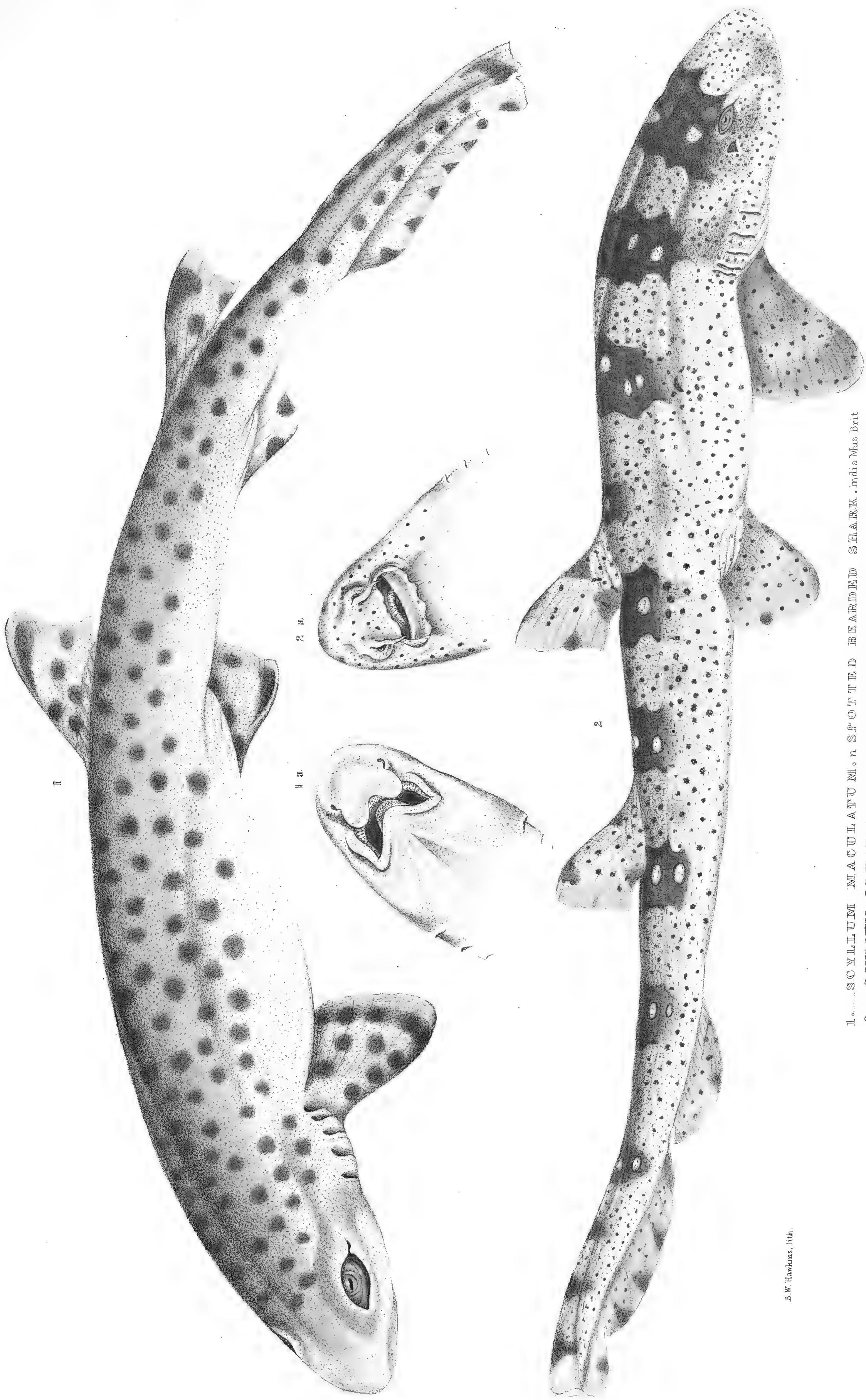
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B.W. Hawkins lith.

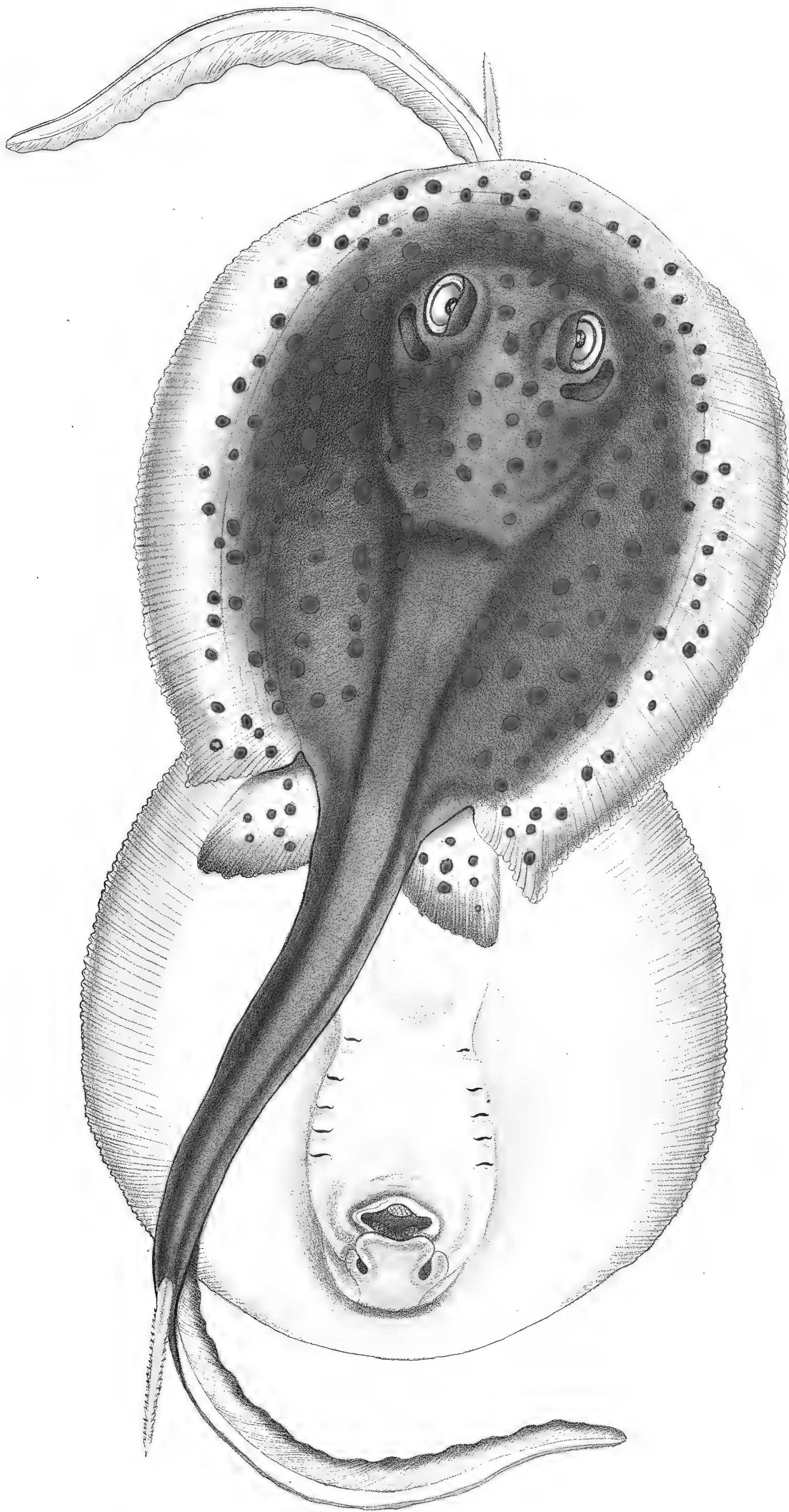
DEFORMED HOG FISH. *SYNANCEIA GROSSA*.
Singapore.

Published by Barbary Allen & Co. Leadenhall Street.
Printed by W. Day.



1.....SCYLLUM MACULATUM, a SPOTTED BEARDED SHARK, India Mus Brit
 2.....SCYLLUM ORNATUM, a ORNAMENTED BEARDED SHARK, China Mus Brit.

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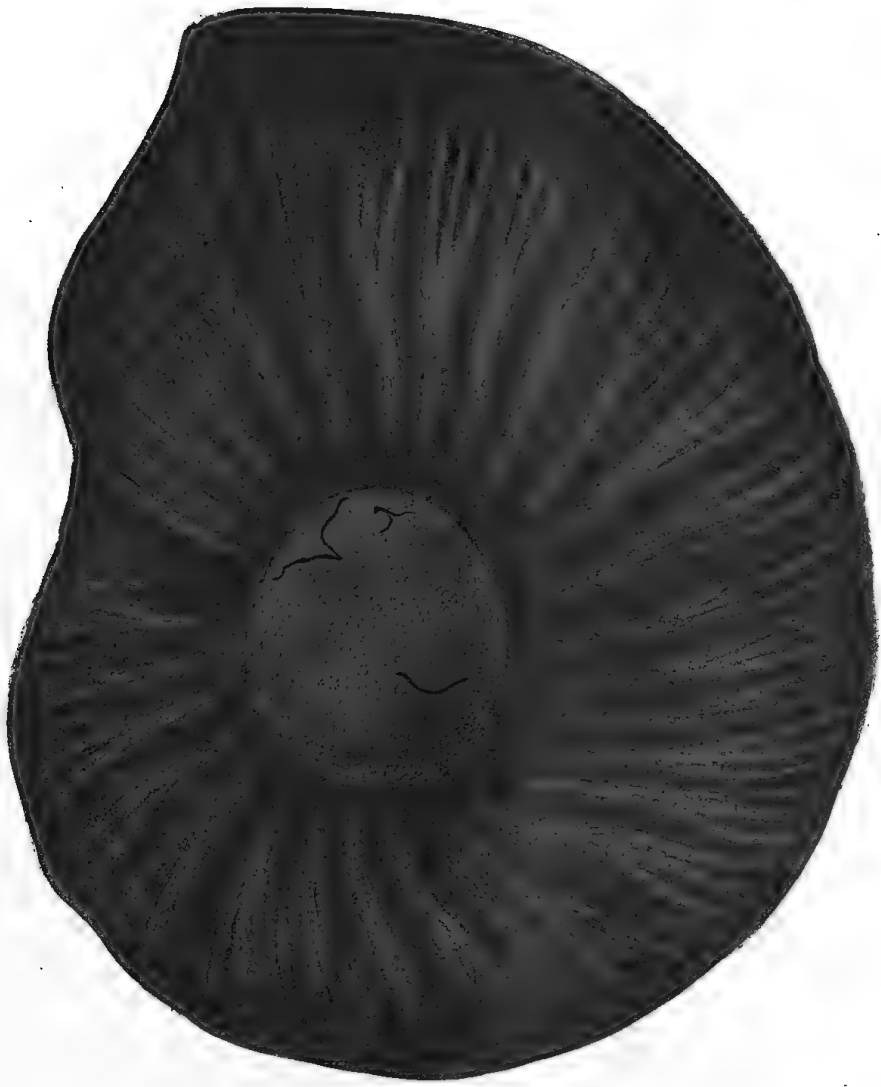
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TRIGON ORNATUS. n.

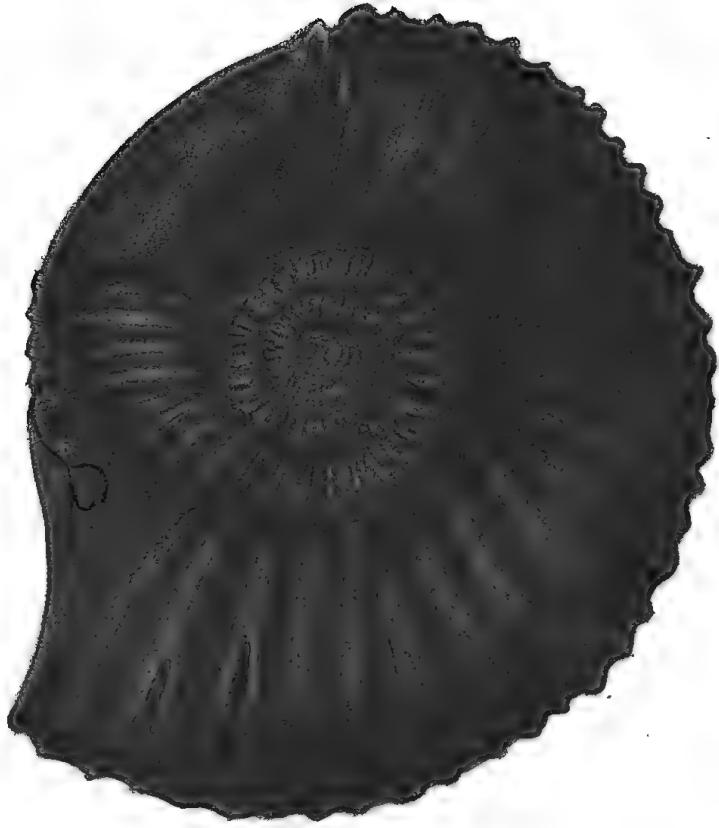
Singapore

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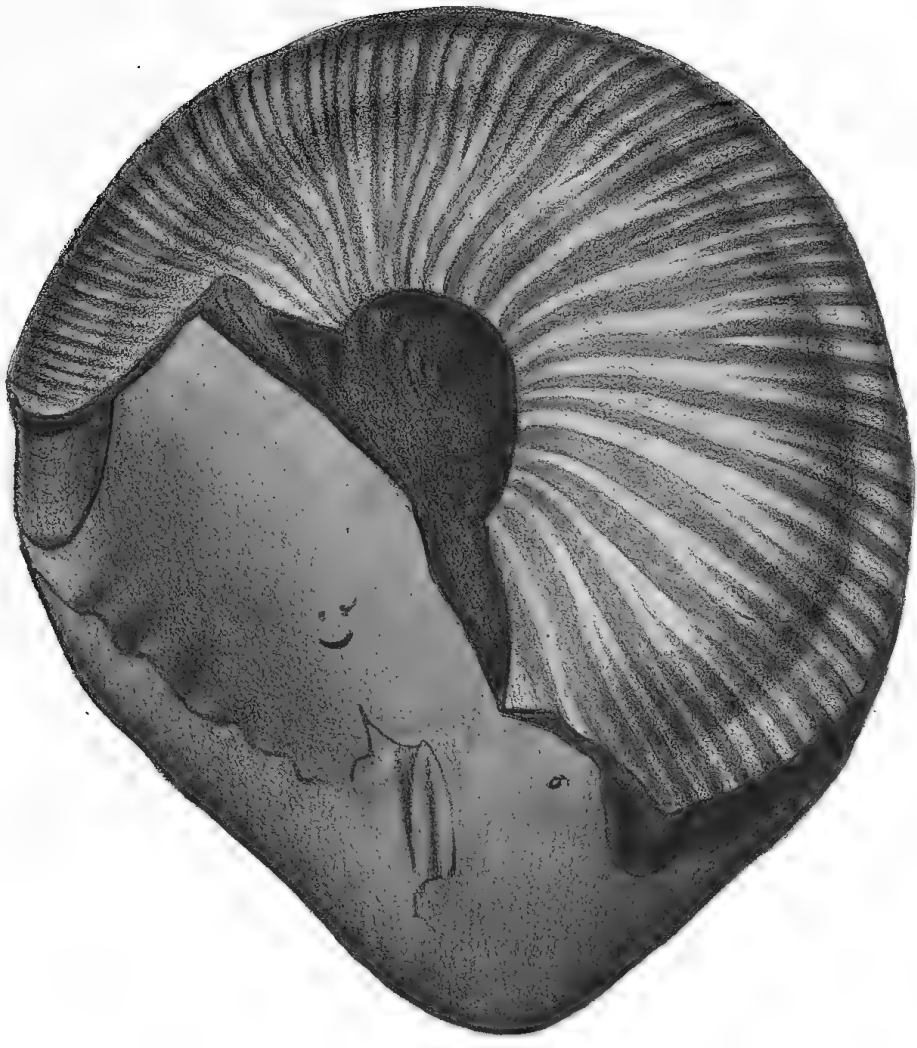


3



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1




4



1. 2. AMMONITES NEPAULENSIS. n.
3. WALLICHII. n.
4. TENUISTNATA. n.
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